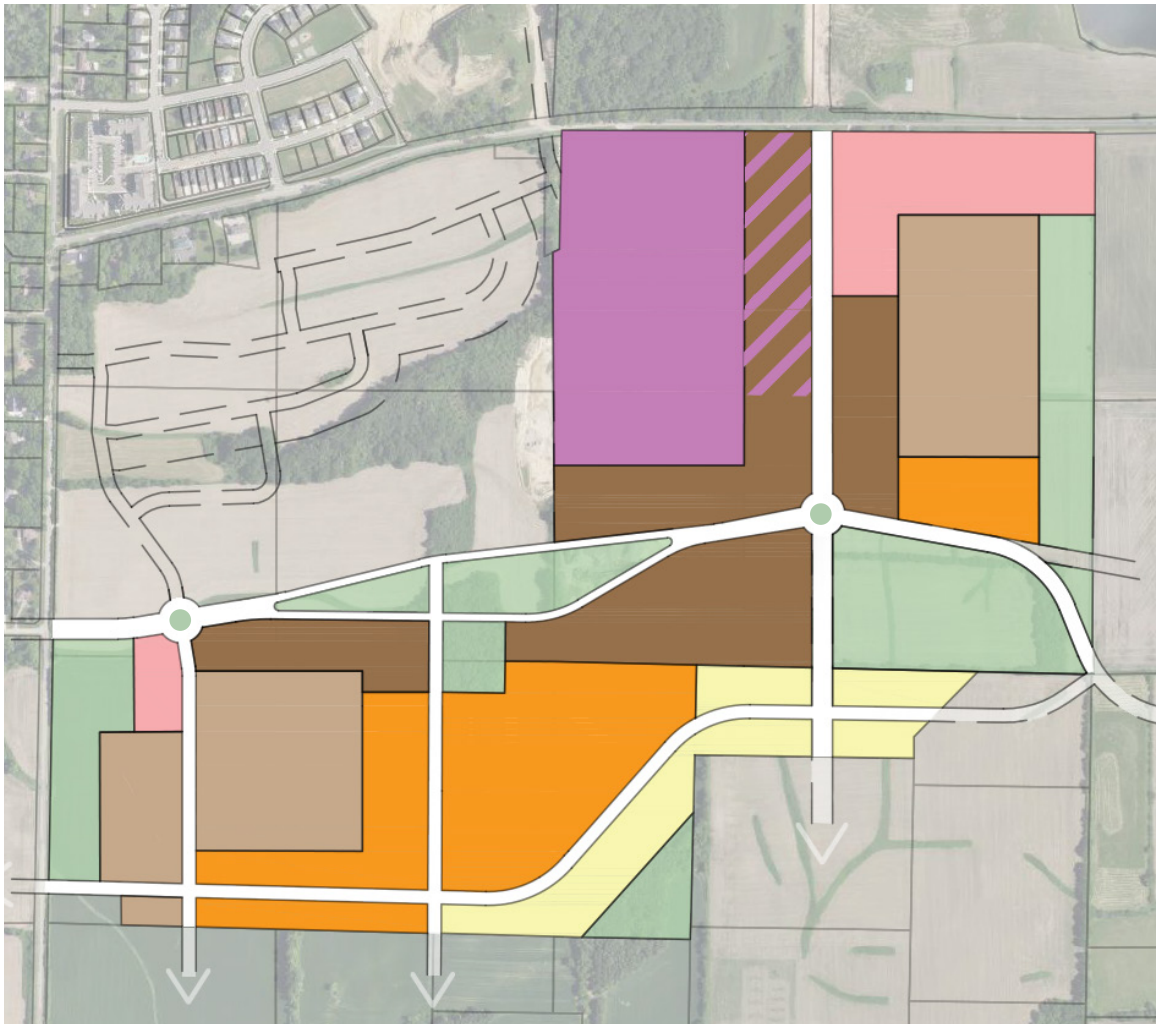
Fitchburg

City of Fitchburg, WI

SOUTH STONER PRAIRIE NEIGHBORHOOD PLAN



PLAN COMMISSION ADOPTION: SEPTEMBER 16, 2025

COUNCIL ADOPTION: SEPTEMBER 23, 2025

MSA

ACKNOWLEDGEMENTS

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**Note: Acknowledgements do not indicate endorsement or support by any individual steering committee members*

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Chapter 3 reviews a variety of factors that will impact current and future development in the Neighborhood,. This chapter provides the recommended land use concept for the neighborhood, with diagrams outlining the design process and proposed land uses, design preferences, and a general road network pattern.

Chapter 4: Engineering 47

Chapter 4 reviews the quality and capacity of existing municipal infrastructure within the planning area, and identifies analysis of how to serve the preferred concept and proposed Future Land Use.

Appendix A: Implementation Action Plan
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Public Engagement Documents

The City of Fitchburg website— under the Planning & Zoning Department page— provides background on this project, including access to all public engagement documents and summary information.

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CHAPTER 1

INTRODUCTION & PUBLIC INPUT

2 Purpose, Objectives & Process

This section outlines the overall purpose, objective and planning process for the South Stoner Prairie Neighborhood Plan.

6 Study Area & Regional Context

This section defines the geographic boundaries of the study area, and its significance in the larger regional context.

8 Public Input

This section provides a detailed summary of the different public engagement activities that were conducted through the planning process.

PURPOSE, OBJECTIVES & PROCESS

What is the intention of this Neighborhood Plan?
This Plan is intended to be a living, workable document for the City of Fitchburg to use as a guide for development/ policy decisions, infrastructure budgets, and strategies in the next twenty years and beyond. This plan establishes a baseline of expectations and targets to meet the community's vision.

This Plan's Future Land Use Map will become policy as part of the Comprehensive Plan.

A neighborhood plan update is recommended as part of any City Comprehensive Plan update, or as needed in the interim to reassess market conditions or changes to the vision/intent for the area.

What is the process to update or amend this Plan?
A draft of this Plan will be shared with City committees and commissions by Council referral. Once revisions are made per feedback from the City's committees and commissions, a public hearing and plan recommendation will be held at Plan Commission. Lastly, a public hearing will be held at City Council prior to consideration of plan adoption.

PURPOSE

The South Stoner Prairie Neighborhood Plan (henceforth referred to as 'the Plan') is a detailed strategy to develop South Stoner Prairie as a complete neighborhood. The plan responds to the City of Fitchburg's needs and vision to accommodate growth in balance with community interests and the area's existing character.

In 2020, the City of Fitchburg adopted the "Growing Fitchburg" Comprehensive Plan, which identified South Stoner Prairie as a Future Urban Development Areas (FUDA). In coordination with staff, stakeholders, and the general public, this Plan identifies areas to protect and develop in the South Stoner Prairie FUDA. The Plan proposes a balanced neighborhood that can accommodate growth, provide economic opportunities, minimize environmental impacts, and address transportation and service needs.

The South Stoner Prairie Neighborhood is located outside of the existing Urban Service Area (USA). USAs are included in area plans for local, regional, and state agency decisions can be coordinated, consistent, and capable of achieving desired growth and development patterns. This plan will serve as the framework for the City's future USA amendment application to the Capital Area Regional Planning Commission (CARPC) and the Wisconsin Department of Natural Resources (WDNR) to accommodate expected growth in the City.

PLAN OBJECTIVES

1. Identify suitable areas for development within the South Stoner Prairie Future Urban Development Area (FUDA). Establish a preferred land use plan that balances growth, blends with the local character, and protects community interests.
2. Identify any infrastructure improvements (water, wastewater, stormwater, etc.) needed to accommodate new development. Establish a plan for new development, including uses, within the constraints of public infrastructure systems.
3. Evaluate transportation networks to include a street and path network to provide connectivity. Project future traffic patterns and volumes to identify and mitigate traffic-related constraints on new uses in the planning area.
4. Enhance bike, pedestrian, and transit accessibility throughout the planning area.

GROWING FITCHBURG 2030

This is the City of Fitchburg's most recent Comprehensive Plan, replacing the 2009 plan. It outlines the City's goals, objectives, and policies to guide growth and development from 2020 to 2030. The City identifies the South Stoner Prairie Neighborhood as a Greenfield Growth Zone/ FUDA, south of the existing Urban Service Area.

Future Growth Map

The Comprehensive Plan included a land-use modeling exercise, which formed the basis of the City's future growth map (**Figure 1.1**) and identified long-term FUDAs. It defined three Growth Zones:

- ***Greenfield:*** Undeveloped lands, often agricultural, located at the edge of the City outside of the Urban Service Area.
- ***Grayfield:*** Lands that are already developed, or lands that are vacant and surrounded by development, inside of the Urban Service Area.
- ***Farmfield:*** Lands planned for agriculture outside of the urban service and not within a FUDA. This growth zone is intended to accommodate agriculture and associated development.

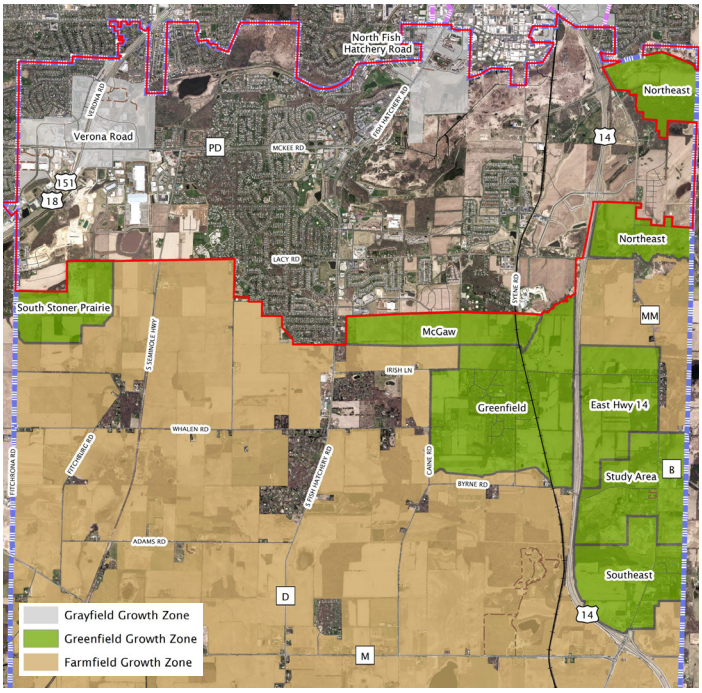
Determination of Greenfield Growth Zones

South Stoner Prairie's designation as a greenfield growth zone is attributed to the following:

- ***Location:*** This area is located at the edge of the city's current Urban Service Area.
- ***Transportation Routing:*** There are strong north/south connections with Fitchrona Road and South Seminole Highway.

Land use modeling will assume an essential role in connecting the neighborhood to surrounding areas.

Figure 1.1: City of Fitchburg Growth Areas Map



What is a "Complete" Neighborhood?

*CARPC describes a complete neighborhood as one with "a mix of **housing types**, **walkable streets**, **parks** and **civic spaces**, and **shopping/services**" (CARPC, The 2050 Regional Development Framework). These neighborhoods accommodate growth with less pressure to develop farmland and natural areas, while ensuring safe, convenient access to daily necessities for residents. With intentional planning and design, complete neighborhoods incorporate a range of housing, a well-connected street network, amenities like stores, schools, and places of worship, and access to bike, pedestrian, and transit systems.*

*SSP Neighborhood goals and strategies are further explored in **Chapter Two**.*

HOW TO USE THIS PLAN

This Plan is organized into four main chapters and four appendices.

Chapter One outlines the plan's purpose and objectives and summarizes the planning process and public feedback. This feedback is reflected in the results presented in the other chapters, through the proposed land use concept, policies, and recommendations.

Chapter Two establishes policies, strategies and actions to guide future growth in the study area. ***The information in this chapter supports review of development proposals, as well as actions steps to support the long-term development of this neighborhood.***

Chapter Three outlines the evaluation process to determine preferred land uses within the study area. It establishes key design parameters—including road and path connectivity, parks and open space, land use density, etc.— that define the Neighborhood's character. The final land use concept provides the foundation for the Plan's Future Land Use (policy) Map and is used to determine the utility needs in Chapter Four.

Chapter Four offers background information that informed the design and decision-making process, including a review of the quality and capacity of existing municipal infrastructure within the planning area. City actions to support infrastructure improvements are outlined in Chapter Two.

PLAN PROCESS

This Plan was developed over approximately sixteen months, beginning in October 2023. The process included the following activities:

Background Research and Consistency

The planning process included a review of relevant plans to identify community goals, initiatives and recommendations that may impact the future development of the South Stoner Prairie Neighborhood. A detailed summary of this plan review is included in **Appendix B**.

Opportunities / Issues Identification

Identify limitations/constraints and opportunities that can impact the preferred land use pattern, utilities and infrastructure needs

Land Use Scenario Planning

Based on the existing conditions and feedback, the process included three parts from initial land use bubble-diagrams, detailed concepts, and a preferred concept.

System Analysis and Infrastructure Needs

Evaluate system based on a preferred concept, identifying improvements necessary to allow development, inclusive of sanitary sewer, potable water, stormwater management, and mobility networks (vehicle, bike and pedestrians).

Outreach and Engagement Plan

Staff Meetings

MSA planners met with staff at every stage of the planning process to review and discuss draft materials. The City's planning, engineering, and economic development departments participated in these meetings.

Key Stakeholder Interviews

MSA and City planning staff met with key stakeholders, including the current landowners.

Meetings covered a range of topics, including intentions for future investment in the neighborhood, preferences for changes in the study area, and any other issues of concern. Feedback from these interviews is briefly summarized in this chapter.

City Council & Other City Commissions

City staff presented planning process updates and plan draft material, and sought feedback on that material, from several City commissions including the following:

- Community and Economic Development Authority (CEDA)
- Transportation and Transit Commission (TTC)
- Plan Commission (PC)
- City Council

Feedback received by the commissions contributed to the Plan's development.

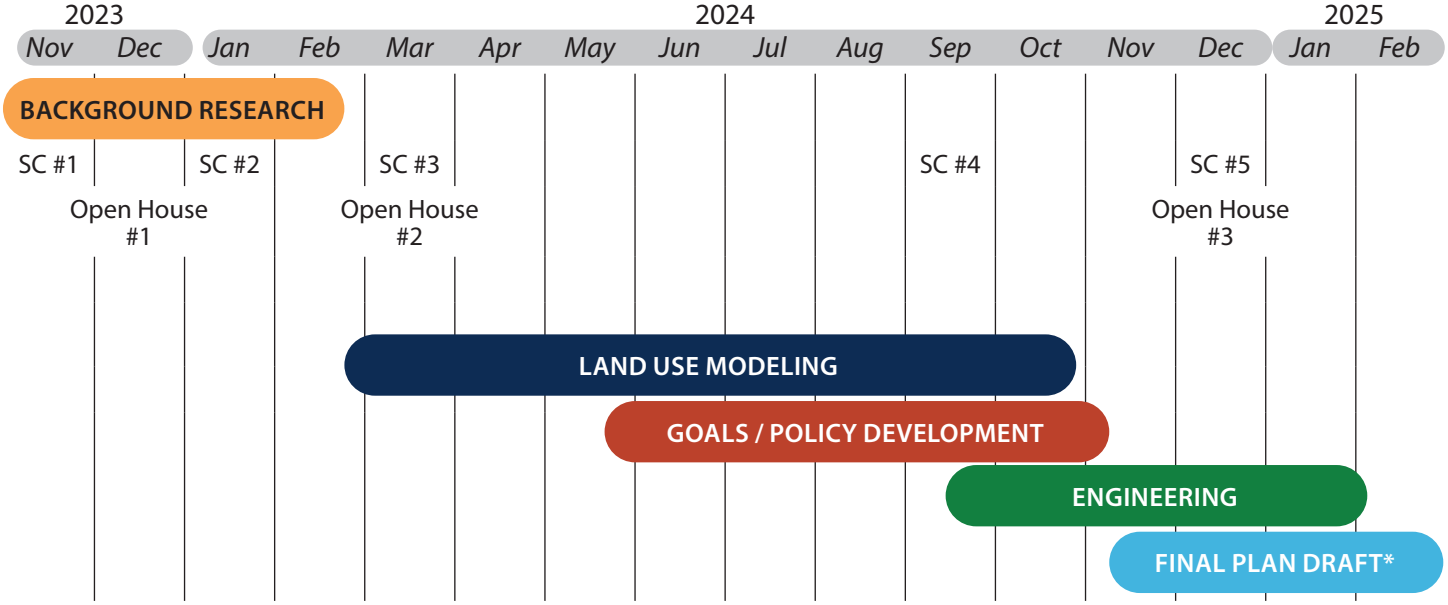
General Public Involvement

The general public was able to hear about the project and provide feedback on a number of occasions throughout the planning process, including the following:

- Online Opportunity Mapping
- Online Survey
- Public Open Houses / Input Forums
- Steering Committee "Working" Meetings
- Plan Commission / Committee of the Whole Meetings
- Public Hearing and Adoption Meeting

Steering committee meetings and other City meetings discussing this project were properly noticed and available to the general public. Questions and comments were received via emails to *neighborhood.plans@fitchburgwi.gov*, which also provided subscribers with project updates.

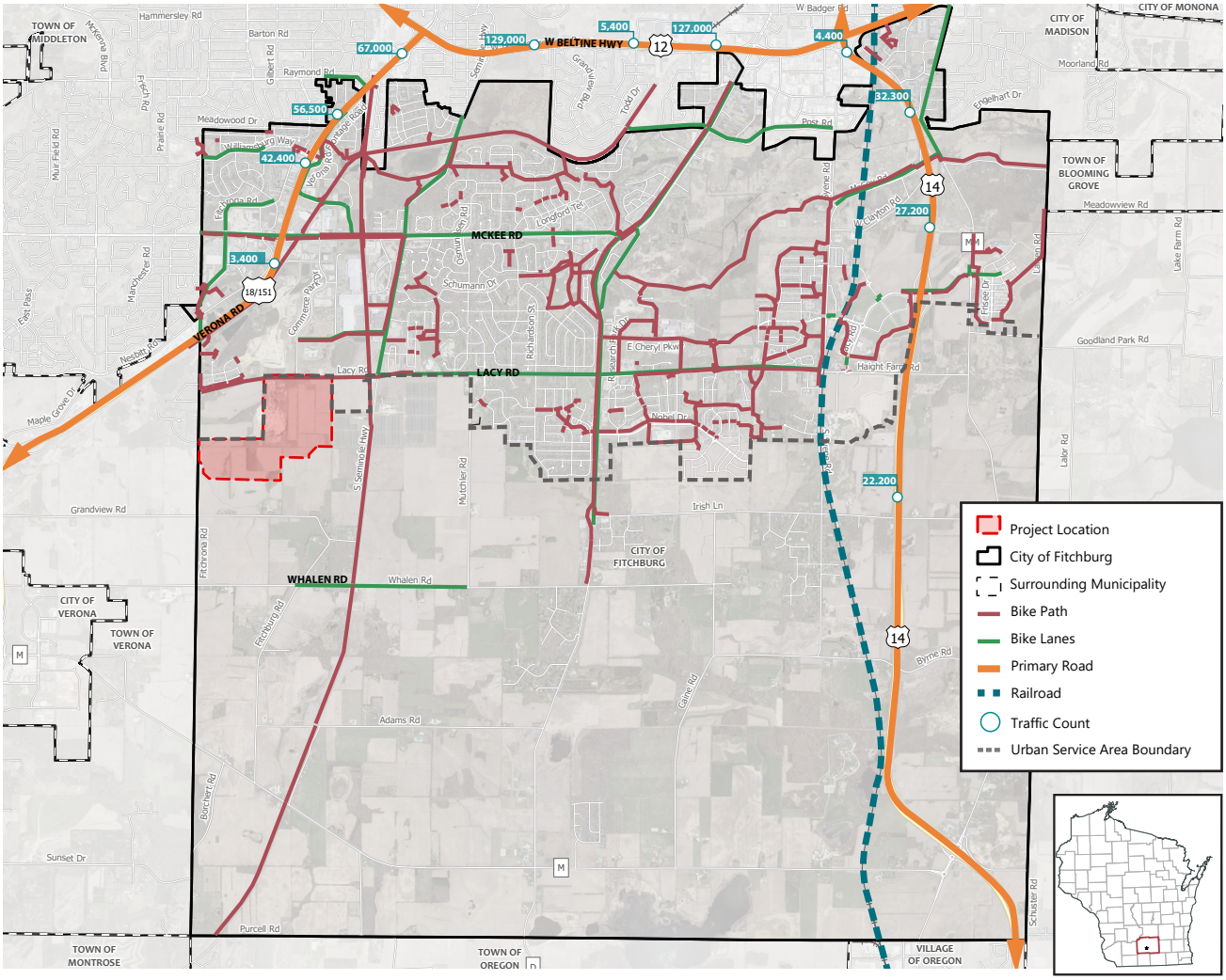
Table 1.1: Project Timeline



**Draft Plan Review and Adoption will take place in February - August 2025.*

REGIONAL CONTEXT & STUDY AREA

Figure 1.2: Regional Area Map



REGIONAL CONTEXT

Bordered by the Fitchburg Urban Service Area to the north, this neighborhood is one of the eight "Greenfield Growth Zones" in the City of Fitchburg. Surrounded by agricultural land on its east and south sides, this neighborhood provides a transition to the more urban developments to its north, east and west, in both the City of Fitchburg and the Madison Metro area.

South Stoner Prairie is well-connected to the local and regional transportation corridors. The neighborhood has easy access to USH 151/WIS 18 to the west and USH 12/18 (via Fitchrona Road, Commerce Park drive, and Seminole Highway), providing access to the City of Madison and other Dane County communities. The neighborhood is also bordered by two roadways that provide east-west connectivity through the City (via Lacy Road) and to the City of Verona (via Grandview Road and Whalen Road).

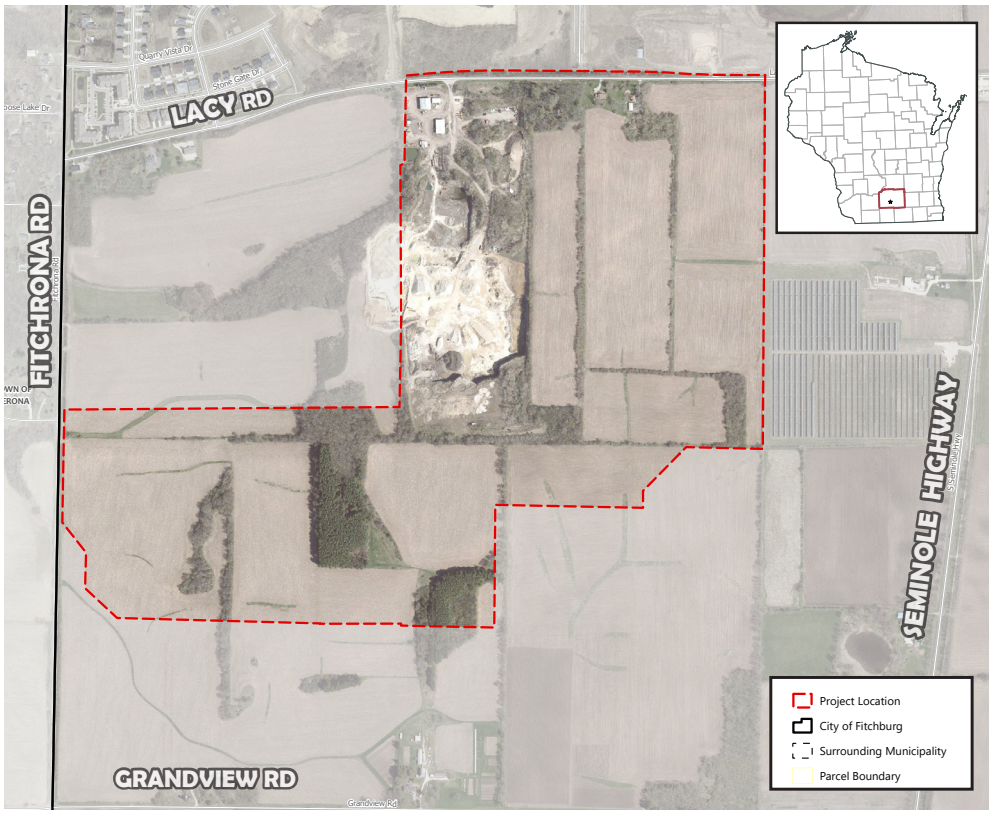
STUDY AREA

The SSP Neighborhood is approximately 280 acres, mostly agricultural with limited woodlands, as well as active quarry operations.

As shown in the map on the right, the study area is generally bound by:

- Lacy Road to the north (excluding lands already in the urban service area)
- Fitchrona Road to the west
- Edgewood College property and solar farm prior to Seminole Highway to the east
- not quite to Grandview Road to the south.

Figure 1.3: Study Area



The planning area falls within the attendance zones of Stoner Prairie Elementary School, Savannah Oaks Middle School, and Verona Area High School in the Verona Area School District. The study area is in Aldermanic District 4.

Local Developments

Notable developments near the study area include:

- North of Lacy Road, Commerce & Industrial Park connects to McKee Road (CTH PD) along Commerce Park Drive.
- The Quarry Vista neighborhood to the north, which similar to SSPN, was also built on the site of a former quarry.
- A planned athletic facility will soon be built directly east of SSPN.
- The O'Brien solar farm was occupied lands east of SSPN for over twenty years.

The Town of Verona to the west features large-lot residential development and agricultural land. The City of Verona/Town of Verona boundary agreement designates the southeastern border of the study area as a "City/Town Interest Area." A summary analysis of recent developments used as case studies in the SSPN planning process is provided in **Appendix B** of this Plan.

Neighborhood Amenities

The neighborhood is very close to recreational trails such as the Badger State Trail, the Military Ridge State Trail, and Quarry Ridge Park, which offers unique mountain biking trails. Despite the absence of bike paths or lanes within the study area, it is near an extensive network to the north and east, connecting it to nearby communities.

PUBLIC INPUT

Providing opportunities for elected officials, property owners and other stakeholders to participate in the planning process offers valuable input and better direction to the final Plan. The following section summarizes the Plan's engagement activities conducted from October 2023 to December 2024.

STEERING COMMITTEE MEETINGS

The steering committee meetings addressed key themes such as the potential addition of a school, the challenge of earth wall dividing the quarries, and the impact of new development on existing trees. They discussed the possibility of adding a school to the neighborhood, considering the best location in relation to current land use and the school district's requirements. The meetings also emphasized preserving local trees by including them in the proposed open spaces. Attendees emphasized the importance of removing the earth wall between the quarries to allow for consistent development patterns.

KEY STAKEHOLDER INTERVIEWS

Property Owners

All of the property owners showed interest in the highest and best use for their land. The existing quarry operators mentioned that extraction will continue for at least the next five years, with transition to development (vs. restoring back to agriculture). The existing landscape in the study area will be severely altered after the quarry operation; a good portion of the land will move 40-60 feet below the current grade, and most of the woodlands will be removed. Current property owners do not intend to quarry the southwest and southeast portions of the neighborhood; however, development in these areas is likely to occur beyond the next ten years due to lack of utilities and current interests of the property owners.

Verona Area School District

The South Stoner Prairie Neighborhood lies entirely within the Verona Area School District (VASD). Two VASD facilities, Stoner Prairie Elementary School and Savanna Oaks Middle School, are SSPN's immediate neighbors to the east along Lacy Road. VASD discussed their most recent school projections through 2035, which identify some development in this neighborhood, but not to the extent established in this plan. While Stoner Prairie Elementary could face capacity challenges by 2035, there are strategies in place to manage these potential issues (e.g., realigning grades at existing schools). The district owns land east of SSPN for a future high school, but indicated strong interest in an elementary school in the South Stoner Prairie area given the potential development identified throughout the planning process.

City of Verona

The City of Verona is focused on development closer to the current municipal limits. During the time of this project, the City was starting their Comprehensive Plan update, but did not have any indication that the update would impact plans for the South Stoner Prairie Neighborhood area.

Town of Verona

The Town of Verona has interest in any improvements along Fitchrona Road, which divides Fitchburg and the Town of Verona. There are current plans to consider a lower density housing development just west of Fitchrona, which could have potential impacts to road/access placement along Fitchrona Road to serve vehicle connectivity through both communities.

Madison Metropolitan Sanitary District (MMSD)

MMSD noted that this study area is identified in their Collections Systems Facilities Plan, and just beginning evaluation of the design to extend service over to Fitchrona Road from their current

main along USH 18. Coordination will be necessary between CARPC, the Town of Verona, and the City of Fitchburg to provide an extension of this utility.

Developer Focus Group

A remote meeting was held with a group of individuals in the development industry— home builders, developers, real estate brokers, and regional economic development specialists. Key takeaways from these discussions include:

- Opportunities for a business park near Lacy, continuing from the business park to the north along a future Commerce Park Drive extension, with a specific need for clean manufacturing.
- Discussion on high cost of agrihood concept and likely not a good fit for this neighborhood.
- Low-density residential should be buffered from the business park
- Overall need for high-density housing options
- A public school would be a benefit to the neighborhood.

PUBLIC OPEN HOUSES

Open House #1 - Kick-Off

About 80 people attended the combined Greenfield and South Stoner Prairie neighborhood plan open house on 12/04/2023. It shed light on important topics and concerns for the local community. Amongst the ideas mentioned is the importance of balancing density with a mix of housing styles and types to accommodate younger families, professionals (like Epic employees), and seniors. The newer residents stressed the need to preserve connection to nature with interspersed trails. The meeting emphasized the need to include mass transit options, such as a bus service on Lacy Road or a future rail connection, while also addressing traffic concerns from the increased use of Lacy Road. Other concerns targeted the altered views from the quarry land from the resident's perspective. The attendees also showed interest in introducing local shopping opportunities to the neighborhood, notably for the residents living on the southeast side of USH 18/151.

Photos from Open House events

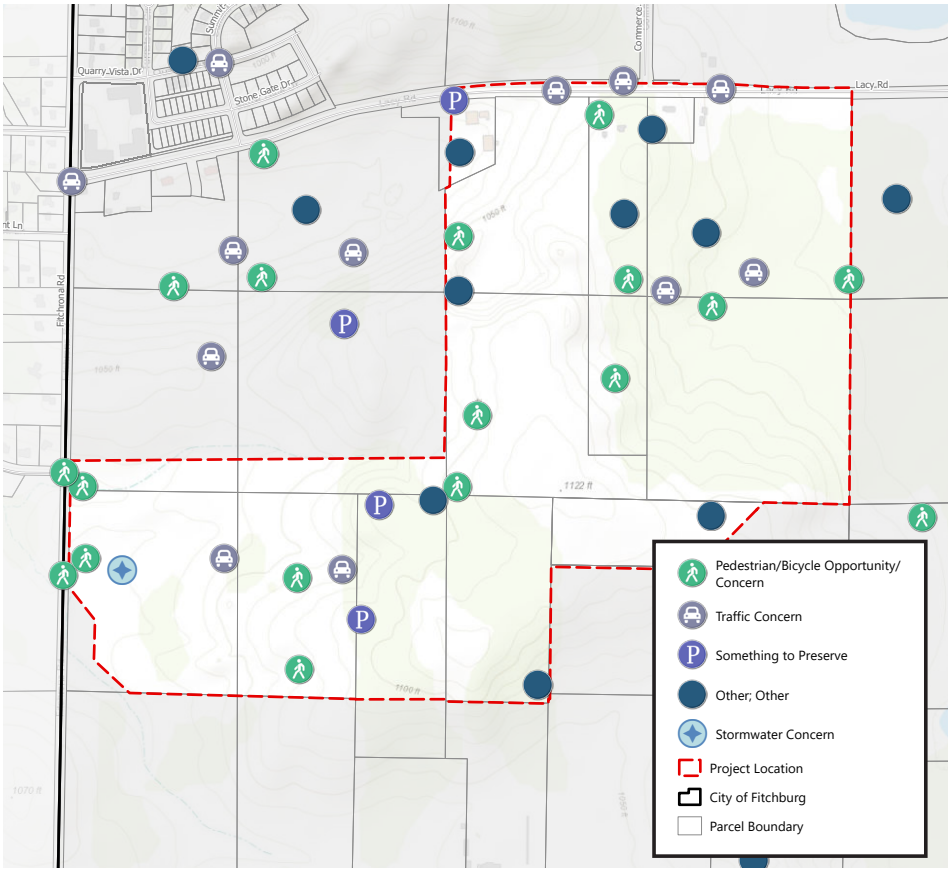
Open House #2 - Concept Review

This meeting on 03/28/2024 focused on three main themes: housing, transportation connectivity, and connections to nature. As for transportation, the meeting showed the importance of connecting to existing biking/hiking trails and paths, and Madison Metro transit stops. Under the "connection to nature" theme, the attendees discussed the importance of preserving wildlife habitat where it is highest in quality, as well as differentiating the ecological corridors from the parks, the open space, and the recreation corridors. Overall, "Option A" was preferred due to its balanced layout between housing and business parks.

Open House #3 - Draft Plan

This meeting was held on 12/19/2024 to highlight the entire planning process and share the goals, policies and actions identified in the plan. This evening was marred by poor weather conditions, resulting in minimal attendance and minimal feedback. A recording of the presentation was posted on the City's website and boards with the strategies and goals were placed in City Hall for several weeks to gain feedback.

Figure 1.4: Public Input Map



ONLINE MAPPING

The online mapping tool was active from November 2023 to January 2024 and collected 50 responses (**Figure 1.4**). Three main themes were identified: transportation, housing, and connection to nature. Increased traffic appeared as a main concern under transportation. The responses tackled the potential of providing shared-use path connections into the new neighborhood. For housing, the responses highlighted the need to balance preservation of farmland in the southern area of the neighborhood, with the need to increase density through a variety of housing types. "Missing Middle" was introduced as a strategy to address housing affordability. The respondents expressed great interest in maintaining a strong connection to nature and preserving open views to appreciate the surrounding landscape.

SURVEY RESULTS

The survey, open from February to March 2024, received 290 responses. It displayed a variety of images at different densities to gauge neighborhood preferences and provided the opportunity to comment on two options for the land use concept (**Figure 1.5**).

Preferred Housing Types

Low-density residential was most supported by respondents, with the top three preferences being:

- Single family (1/3 acre) – 72%
- Single family (1/2 acre) – 71%
- Single family (3/4 acre) – 66%.

Of the medium-density options, the top three preferences were:

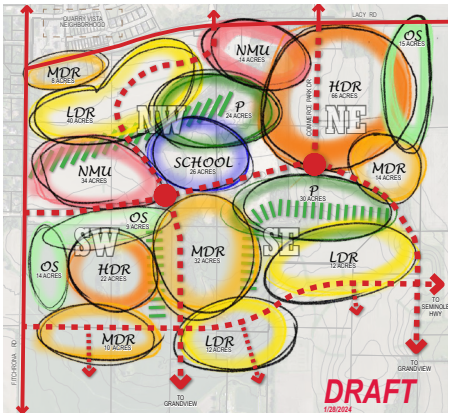
- Single family (1/8 acre) – 56%
- Single family (1/4 acre) – 61%
- Duplex – 61%

Of the high-density options, the top three preferences were:

- Townhomes (4-8 units) – 55%
- Single family (1/12 acre) – 50%
- Single family (1/10 acre) – 49%

Figure 1.5: Land Use Scenario Options in Online Survey

Option A



Option B

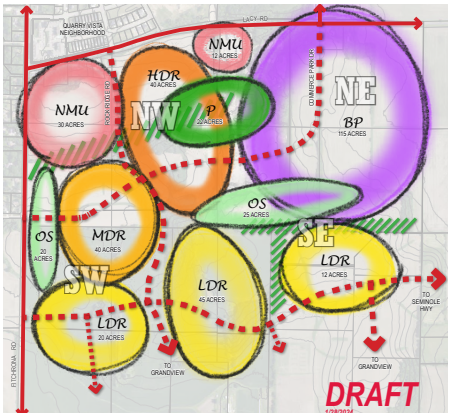
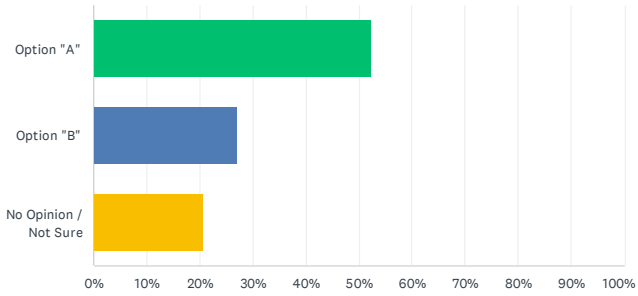


Table 1.2: Public Survey Results

Q20 Which land use option do you prefer?

Answered: 184 Skipped: 106



ANSWER CHOICES	RESPONSES	
Option "A"	52.17%	96
Option "B"	27.17%	50
No Opinion / Not Sure	20.65%	38
TOTAL		184

Land Use Scenarios

In Land Use Option "A", respondents found not enough low density, too much high density, and just enough medium density and neighborhood mixed-use. Parks and open space were tied between too little and just enough.

In Land Use Option "B", respondents found not enough parks and open space, just enough low density, medium density and neighborhood mixed-use, and too much high density and business park. Overall, 52% of respondents preferred Option "A" (**Table 1.2**). *See **Chapter Three** for more information.*

OTHER COMMENTS

Other comments received through emails and calls stressed the need to prevent sprawl and aim for some increases in density to enhance economic growth and provide for sustainable development.

CHAPTER 2

VISION, GOALS, & GUIDELINES

13 Vision, Goals & Strategies

This section presents the overall long-term vision for the South Stoner Prairie Neighborhood, and states the goals and policies to reach this stated vision.

23 Future Land Use Map

This section presents the proposed Future Land Use Map and its relationship to the existing comprehensive plan.

24 Placemaking & Design Guidelines

This section presents strategies to guide the development of a unique place that will draw from the City of Fitchburg and the broader region.

VISION, GOALS, & STRATEGIES

This section establishes goals and strategies that will guide the development of the Neighborhood. Strategies supplement the design guidelines found in this chapter and the implementation action plan in Appendix A..

VISION STATEMENT

South Stoner Prairie will develop as a complete neighborhood that creates diverse and affordable housing options, expands job opportunities, facilitates sustainable design and development practices, and promotes social equity.

Neighborhood goals are divided into the following categories and further explained on the following pages:

Housing: *Integrate a diversity of housing types to accommodate a variety of lifestyles, age groups, and income levels.*

Mobility: *Implement safe, convenient and attractive streets that are accessible for all ages, abilities, and modes of transportation (pedestrian, bicycle, vehicle, and mass transit).*

Economy: *Locate employment options near residential areas, supporting the local and regional economy and providing job opportunities.*

Quality of Life: *Maintain streetscapes and open spaces that are accessible to all residents for recreation and enhanced neighborhood character.*

Sustainability: *Create an economically and environmentally sustainable development pattern, protecting existing natural features.*

1. HOUSING GOAL & STRATEGIES

Goal 1 – Integrate a diversity of housing types to accommodate a variety of lifestyles, age groups, and income levels.

Strategy #1.1

Encourage a variety of housing types, forms, price points, and tenures are included in the neighborhood.

Subdivisions should include a mix of unit types that will support varying household sizes and incomes. Subdivisions of 20 lots or more may be required to provide at least two housing types/forms. Consider amending the comprehensive plan to allow for two and three unit buildings in low and medium density districts.

This neighborhood incorporates varied housing types, using building orientation to mitigate compatibility issues.

Strategy #1.2

Encourage building and site design to facilitate transitions between low-intensity residential development and more intensive multi-unit residential, office and mixed-use developments.

Building forms and neighborhood patterns should be compatible with the design guidelines established in this Plan.

This apartment building steps down the building adjacent to a neighboring lower-density residential use.

What is "Intensive" Development?

It refers to utilizing a piece of land to its maximum potential by building structures close together and/or larger in size and scale. Intensive developments provide a wider range of businesses and activities for higher numbers of people in a community.

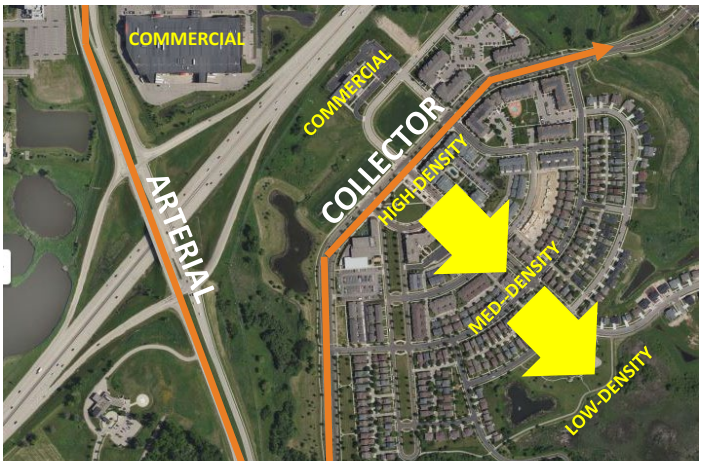
For the purposes of this Plan, low-intensity residential development indicates single-family, duplex, townhomes, and small multi-unit buildings.

1. HOUSING GOAL & STRATEGIES (cont.)

Strategy #1.3

Concentrate higher-density residential and mixed-use developments along primary corridors to support future sustainable public transit route(s).

Public transit provides social, environmental, and economic benefits to communities. The most sustainable transit routes will be located along higher-density residential and commercial corridors (increased ridership). In South Stoner Prairie, these corridors would include Lacy Road, a proposed extension of Commerce Park Drive, and the addition of Collector Road "A."



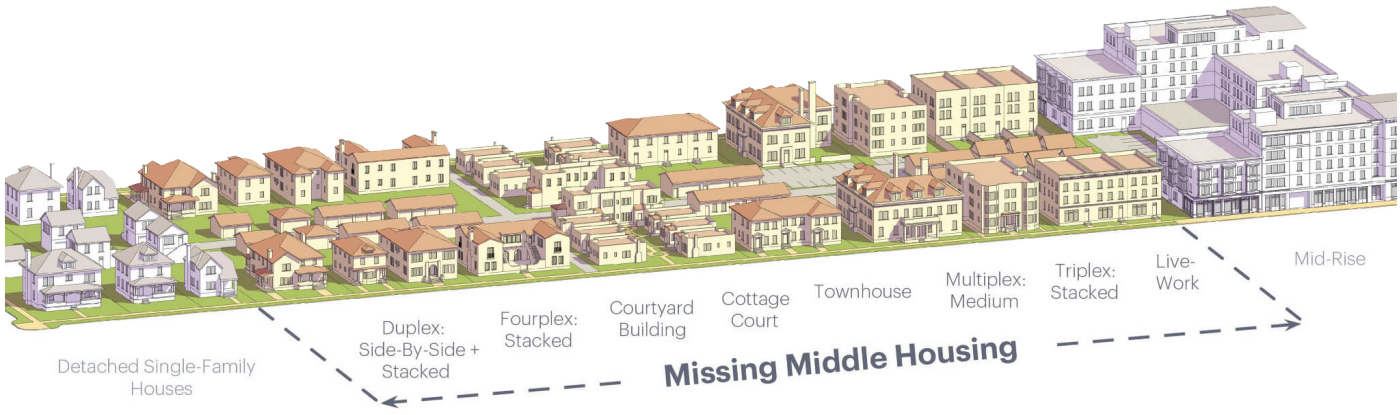
The first bus route in Sun Prairie serviced this neighborhood due to its concentration of high-density housing inclusive of home-ownership and rental units.

Strategy #1.4

Encourage Traditional Neighborhood Design (TND) developments that allow for 'missing middle' and small-lot housing.

Traditional Neighborhood Design (TND) promotes "compact, pedestrian-oriented neighborhoods with a mix of commercial and residential uses, a variety of housing types, and public places where people can socialize and engage in civic life" (Capitol Region Council of Governments). TND also improves land use efficiency and opportunities for alternative modes of transportation.

The above four-unit development includes reduced setbacks and porches that provides a welcoming frontage. The building types also fit the "missing middle" housing formats as illustrated below.



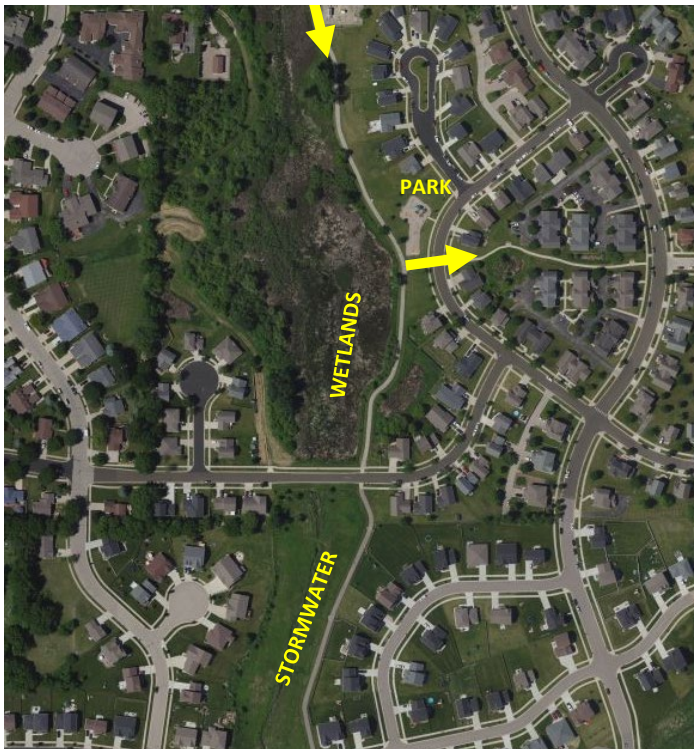
2. MOBILITY GOAL & STRATEGIES

Goal 2 – Implement safe, convenient and attractive streets that are accessible for all ages, abilities, and modes of transportation (pedestrian, bicycle, vehicle, and mass transit).

Strategy #2.1

Develop a convenient and connected multi-modal transportation system that links the neighborhood to the City and greater Dane County area.

Paths provide opportunities for passive and active recreation, support healthy living, increase the value of adjacent neighborhoods, and provide alternatives to motorized transportation, connecting people to civic and employment areas. These benefits are multiplied when local paths are linked together and to regional path systems.



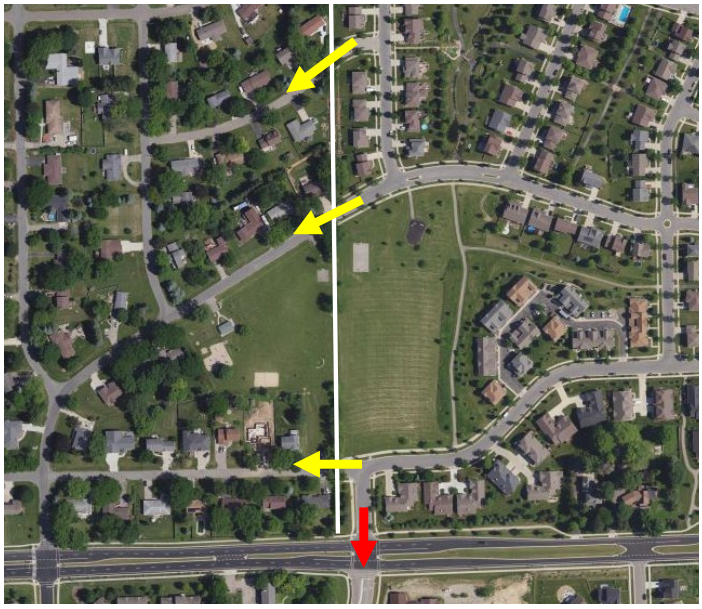
This path connects a major roadways to a neighborhood park to several local neighborhood streets.

Strategy #2.2

Require proposed streets to connect to existing streets and intersections, wherever practical.

Dead-end streets and non-continuous path networks limit options when moving throughout a community. This reduced mobility increases travel distance and traffic on primary roadways, can frustrate drivers/pedestrians, and discourages non-motorized travel. Development shall make every effort to connect to existing facilities (paths, roadways and intersections).

This Plan anticipates neighborhood development to occur in fragments over time; future development should anticipate and provide necessary connections between developments.



New neighborhoods making road and pedestrian connections that were established in older subdivisions.

2. MOBILITY GOAL & STRATEGIES (cont.)

Strategy #2.3

Discourage cul-de-sac and dead-end streets in favor of connected streets that provide transportation flexibility.

Where cul-de-sacs are necessary due to terrain or natural features, development should install multi-use paths connecting dead-ends to the street network.

Strategy #2.4

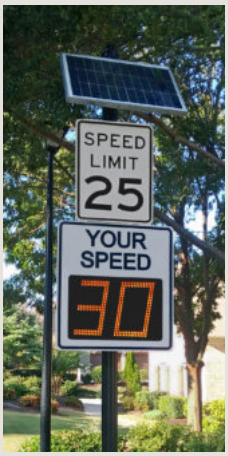
Design complete streets and utilize traffic calming and safety measures where appropriate to create a better street environment for pedestrians and cyclists.

The frequency and speed of vehicles can greatly impact road safety, especially for pedestrians/bicyclists. Streets should be designed for 20 MPH speeds when feasible. Various "traffic calming" measures can be designed or retrofitted to a roadway to reduce vehicle speeds and discourage vehicle usage (cut-through traffic). Traffic calming measures in South Stoner Prairie can include bump-outs, traffic circles, high-visibility crosswalks, and raised pedestrian crossings.

Streets shall include adequate lighting, especially on major collector roads and at significant intersections, to ensure safety of all users.

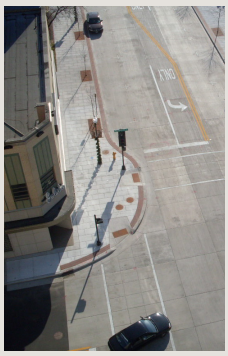
Traffic Calming Measures reduce traffic speeds and/or cut-through traffic with the goal of increasing safety for motorists, bicyclists, and pedestrians.

- **Striping Drive Lane Edge:** Painted solid line to reduce the perceived lane width and separate it from parking or biking space.
- **Tree-lined Streets:** Streets with landscaped center medians and/or perimeter trees can affect driver perceptions of lane width, inducing lower speeds.
- **Speed Display Sign:** Street sign with radar that displays actual speed and prompts motorists to slow down (via blinking or flashing lights).



Speed Display

- **Bump-out (bulb-out, neck-downs):** Curb extensions into the road section (outside travel lanes) that narrows the road and length of pedestrian crossings.
- **Raised Crossing / Intersection:** Speed table across the entire crossing / intersection that reduces vehicle speed and creates level crossings for pedestrians.
- **Raised Median / Crossing Refuge**: Placement of a raised island in the middle of the roadway to narrow the vehicle travel lanes.


Bump-out

- **Chicanes and Traffic Circles:** Features that shift the path of traffic horizontally within the right-of-way. Chicanes do this mid-block and traffic circles do this within intersections.


Raised Median / Crossing Refuge, Plus Speed Table


Chicane

3. ECONOMY GOAL & STRATEGIES

Goal 3 – Locate employment options near residential areas, supporting the local and regional economy and providing job opportunities.

Strategy #3.1

Attract businesses that will meet local and regional needs, provide quality job opportunities, create a diverse mix of uses, and expand the property tax base.

Balanced neighborhoods include commercial areas within walking distance of residential areas; businesses and building forms will enhance the neighborhood's character and provide employment options in close proximity to where residents live.

Strategy #3.2

Promote commercial / business park areas that are compatible with the density and scale of surrounding development or screened to the extent practical.

Building forms should follow design and compatibility guidelines as described in this Plan. Scale, massing, and uses in employment areas shall consider design solutions that minimize impact to residential areas. Pedestrian and vehicle connections shall be provided between residential and employment areas.

This example ties the business park to the neighborhood along a minor street, as well as by an off-street path. Building scale in the business park is smaller closer to the residential area.

This two-story mixed use building has a pitched roof and gables that are aesthetically compatible with single-story ranch homes similar to those that already exist or will soon be constructed in the area surrounding the neighborhood.

Strategy #3.3

Incorporate safe and convenient pedestrian, bicycle, and motor vehicle connections within and through commercial, mixed-use, and business park developments.

Balanced neighborhoods includes walkable access to jobs and services. Business entrances open to the public should connect to the street. Parking areas should include dedicated pathways and crossings to increase safe travel between businesses and parked vehicles.

4. QUALITY OF LIFE GOAL & STRATEGIES

Goal 4 – Maintain streetscapes and open spaces that are accessible to all residents for recreation and enhanced neighborhood character.

Strategy #4.1

Design residential areas around community gathering places (e.g., parks, schools, churches, community gardens, and other community facilities).

Public / community facilities are activity hubs within a neighborhood, historically placed on the premiere site within a neighborhood, district, or community. These facilities should be planned for and located in areas that are accessible and visible within the neighborhood.

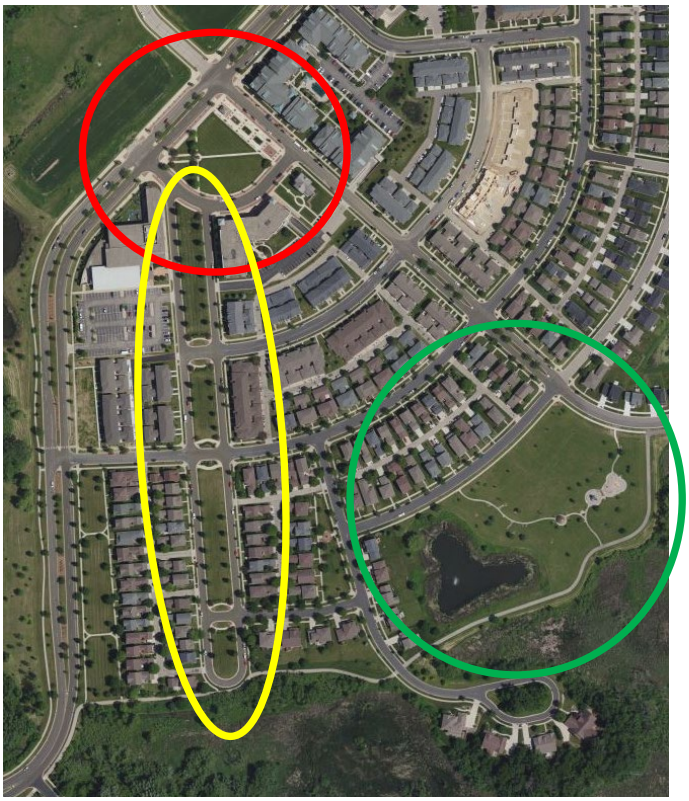
Strategy #4.2

Plan for parks that vary in size and facilities to fulfill ranging neighborhood recreation interests, including creating a larger park to serve as an Area or Community Park, consistent with the Fitchburg Parks and Open Space Plan.

Parks should be within 1/4- to 1/3-mile from residents with at least one neighborhood park within a 10-minute walk. Larger subdivisions should consider more than one park with varying programs, where practical.

Strategy #4.3

Allocate enough contiguous and functional park land to serve as an area or community park.



This Sun Prairie neighborhood includes a variety of open spaces that provides for diversity of uses and amenities, including a plaza (red circle), boulevard street (yellow circle), and traditional neighborhood park (green circle).

4. QUALITY OF LIFE GOAL & STRATEGIES (cont.)

Strategy #4.3

Make intentional multi-modal connections between local and regional park/open space areas.

Environmental features offer a break from the urbanized environments we live in. Paths, trails, and/or park amenities should take advantage of these features. Tying together several park and open space destinations provides a benefit to all neighborhoods residing along the route(s). Locally, the South Stoner Prairie neighborhood has the opportunity to connect to the Quarry Ridge Recreation Area and the Badger State Trail.

Strategy #4.4

Design attractive streetscapes with street trees, lighting, and/or low maintenance landscaping clusters along major roadways.

Effective streetscape design can improve pedestrian experience and safety, address stormwater management, and minimize necessary landscaping efforts. Elements including median or terrace treatments, landscaping, and paving design along primary roadways can also establish / enhance the community 's identity.

Strategy #4.5

Plan and design public infrastructure that is sustainable and low maintenance.

Species of street trees should be selected for qualities including low maintenance requirements, canopy size, climate survivability, and pollution tolerance. Road medians must be sized appropriately for the health of trees and plantings. Planting beds should utilize native plant species such as prairie grasses and require as little mowing as possible.

Attractive streetscapes enhance the pedestrian experience with strategies including median and terrace plantings, paved sidewalks and paths, street trees, and pedestrian-scale lighting.

5. SUSTAINABILITY GOAL & STRATEGIES

Goal 5 – Create an economically and environmentally sustainable development pattern.

Strategy #5.1

Protect and restore the environment by integrating natural features into common open spaces for active / passive recreation, public gathering, or flood protection and stormwater management.

Strategy #5.2

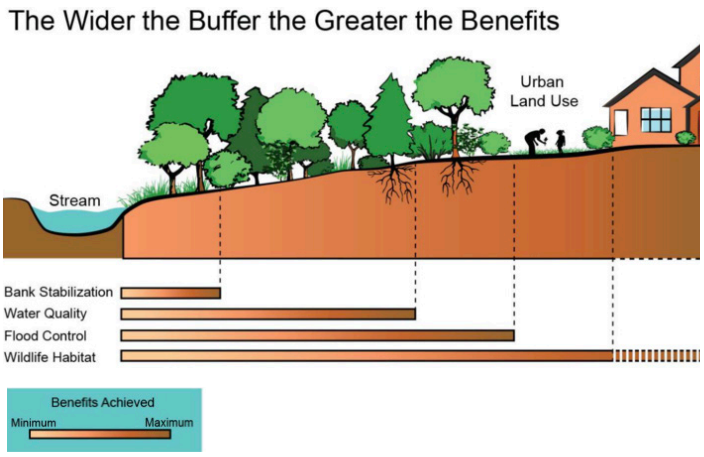
Preserve the existing tree canopy to the extent possible, to include woodlands that are not intended to be quarried.

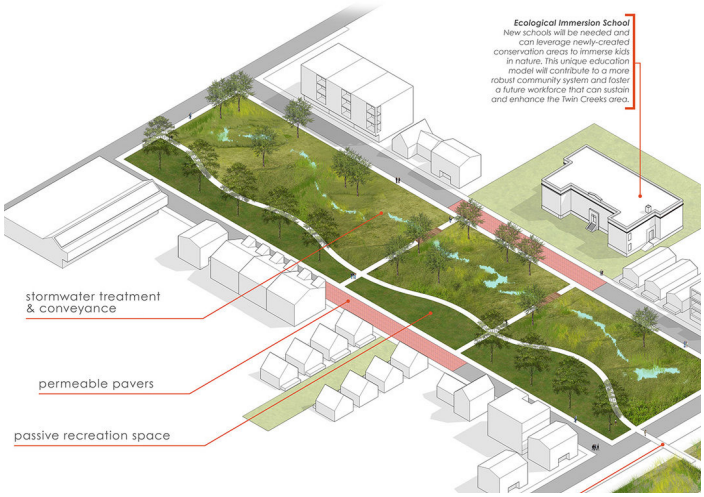
Preservation efforts will especially prioritize high-quality woodlands containing heritage or old growth trees. Woodlands will help to create a buffer between natural areas and development, ensuring wetland and stormwater collection areas remain undisturbed. The existing woodlands will also provide the neighborhood with an essential tree canopy while young trees grow within the new development.

Strategy #5.3

Encourage high-density residential development along collector and arterial roadways.

This will allow for greater preservation of open space in the middle and edges of subdivisions and create viability for future transit service.





This diagram illustrates how stormwater management areas could also serve as a buffer between different uses, and provide passive recreational activities if connected to paths.

5. SUSTAINABILITY GOAL & STRATEGIES (cont.)

Strategy #5.4

Explore options to recycle quarry byproducts through site development to reduce waste and allow for more economical development.

Strategy #5.5

Encourage energy-efficient buildings consistent with the city's existing energy targets.

Energy targets are available in the Fitchburg Sustainability Plan and the Clean Energy Resolution.

Strategy #5.6

Consider opportunities for alternative energy use within neighborhood design.

Future neighborhood development can support alternative forms of energy through solar-friendly urban design techniques and EV ready development. Aligning roadways east-west has roof planes facing north-south, allowing for maximum surface for solar panels.

The photo above presents an example of design strategies to maximize infiltration through pervious materials.

Solar panels can be integrated into residential areas while preserving neighborhood character.

FUTURE LAND USE MAP

FLU AMENDMENT

As discussed in **Chapter One**, the City identifies South Stoner Prairie as a Greenfield Growth Zone / FUDA. The Comprehensive Plan's current Future Land Use (FLU) Map only documents existing land uses until a more detailed neighborhood plan is developed. This neighborhood planning process (see **Chapter Three**) establishes a FLU Map for the South Stoner Prairie FUDA in **Figure 2.1**. Through the adoption of this Plan, the City will amend the Comprehensive Plan's citywide FLU Map.

The recommended land use categories match those already provided in the Comprehensive Plan, except for Neighborhood Mixed Use. **Chapter Three** of this Plan identifies the intent with this new FLU category.

The hatched area on Commerce Park Drive indicates land which could be occupied by one of two uses: business park or high-density residential.

Figure 2.1: SSPN Future Land Use Map

LEGEND

- 33 - 43 A. — Business Park (BP) *(Range to include hatched areas)*
- 40 - 50 A. — High Density Residential (HDR) *(Range to include hatched areas)*
- 41 ACRES — Medium-High Density Residential (MHD)
- 41 ACRES — Medium Density Residential (MDR)
- 17 ACRES — Low Density Residential (LDR)
- 17 ACRES — Neighborhood Mixed Use (NMU)
- 47 ACRES — Parks, Open Space, & Stormwater Management
- Roundabout

PLACEMAKING

QUALITY PLACES

Placemaking is the *process* of creating ***quality places*** that attract people. Quality places can and should be unique and memorable, but there is a set of general physical characteristics that all good places share.

Project for Public Spaces (PPS) has found that Quality Places share four common characteristics:

1) they are ***accessible***;

2) people are engaged in ***activities*** there;

3) the space is ***comfortable*** and has a good image; and

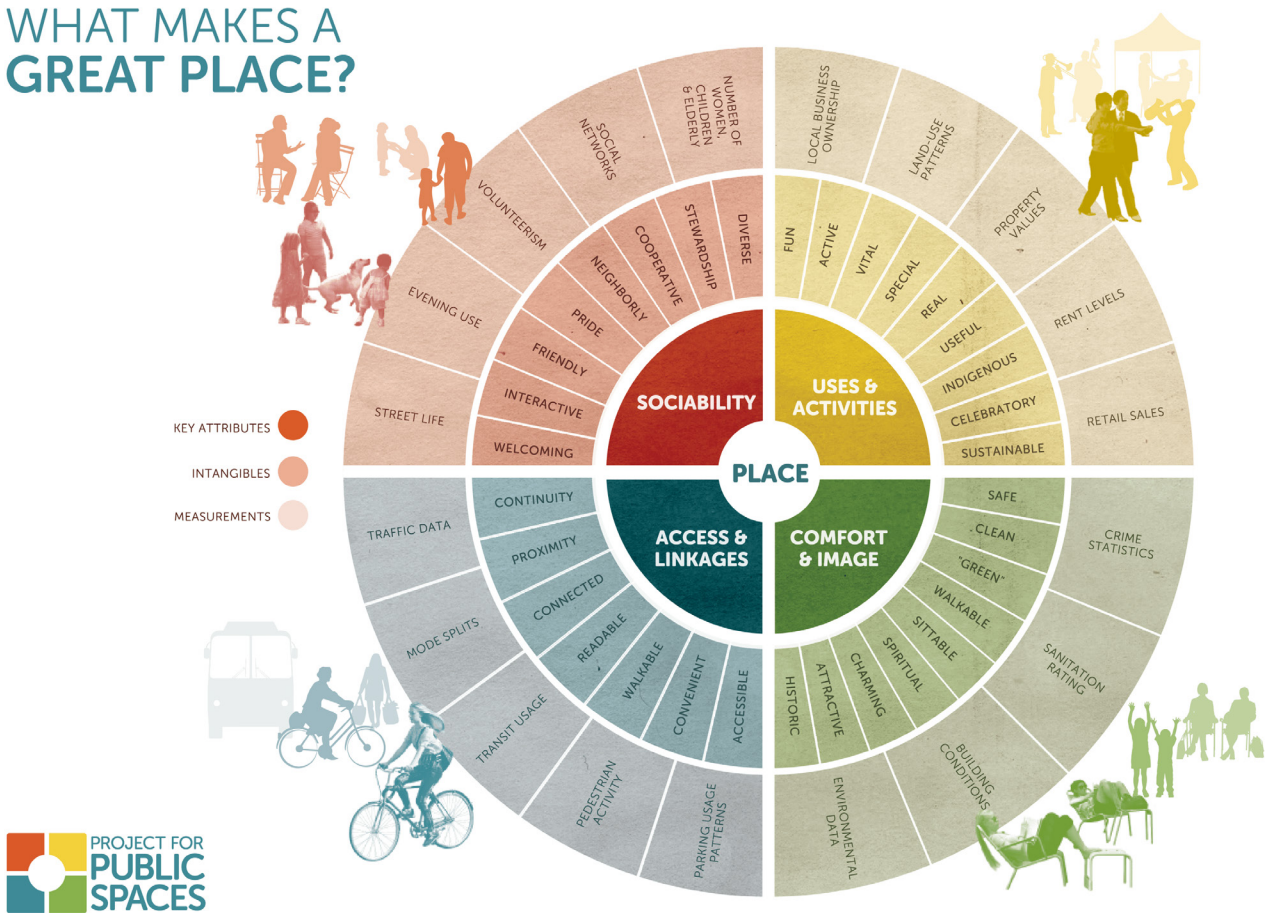
4) it is a ***sociable*** place - one where people meet each other and take people when they come to visit.

The Place Diagram (created by PPS) is shown below, and describes the many facets that make a place "great".

The Vision for this Plan is to make South Stoner Prairie a distinctive place. This section describes guidelines to work towards this goal; however, these guidelines are not intended as strict requirements.

PLACEMAKING STRATEGIES

The following guidelines, and the map on the next page, describe some placemaking strategies to enhance the neighborhood's capacity to attract people and investment and generate positive feelings about this area.



DESIGN GUIDELINES

*Design guidelines are set to create memorable, desirable buildings and spaces, fostering a unique neighborhood character that residents will love and continue to invest in for many decades. Nonresidential and multifamily developments are **encouraged** to meet these guidelines.*

1. ECO / SUSTAINABLE DESIGN

A. Orient buildings on the site to maximize natural light, ventilation, and solar energy opportunities.

B. Consider using green roof technologies.

C. Use "dark sky" friendly exterior lighting and energy-efficient lighting technologies.

D. Consider using mechanical systems that utilize renewable energy (solar, wind, geothermal) and minimize greenhouse emissions.

E. Utilize rain water collection, storage and distribution for irrigation systems.

F. Consider reusing "grey" water (wastewater generated from domestic activities such as laundry, dishwashing, and bathing) for irrigation and other non-potable uses.

G. Include bio-filtration basins and swales as a part of the stormwater systems on site to promote infiltration and groundwater recharge and reduce sediment runoff.

H. Consider using porous paving materials (asphalt, concrete and pavers) in parking areas, walkways, etc.

I. Use drought tolerant landscaping materials to limit water use.

J. Incorporate Level 1 or 2 electric vehicle charging stations within exterior and covered parking areas.

2. ARCHITECTURE & DESIGN

A. Buildings should utilize details or changes in materials to create a discernible base, middle and top. Multi-storied buildings should have a horizontal expression line between the first and upper floors.

B. Buildings should establish vertical proportions for the street facade (e.g., expression of structural bays, variation in material, and/or variation in building plane), and for the elements within that facade (e.g., windows, doors, structural expressions, etc).

C. Avoid large, undifferentiated building walls and roof lines. Desired design features include variation in materials and colors, projecting and recessed bays, and variation in building heights.

D. Street-facing facades should use durable and high-quality building materials. All sides of the building should include materials and design characteristics consistent with the front facade. Use of lesser quality materials for the sides and rear facades should be minimized. Vulnerable materials, such as Exterior Insulation Finishing System (EIFS), should not be used.

Examples of various techniques in use to break down the apparent mass of a large building, including canopies, recessed decks, recessed top story, and variations in materials and wall plane.

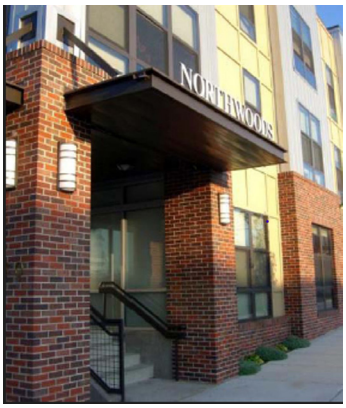
2. ARCHITECTURE & DESIGN (CONT.)

E. Awnings and canopies are strongly encouraged on ground floor facades of commercial, mixed use and apartment buildings. Awning colors should relate to and complement the primary colors of the building facade. Glowing awnings (backlit, light shows through the material) are discouraged.

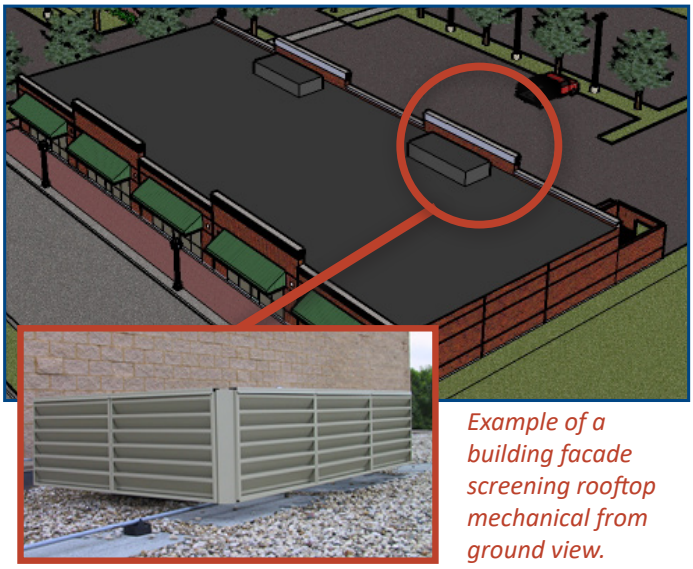
F. All buildings should have clearly-defined and welcoming entrances. Canopies, awnings, covered porches, and/or gable roof projections should be provided along facades that give access to the building to accentuate entrances and give shelter to visitors. Mixed-use and pedestrian oriented commercial buildings should have public entrances on the street-facing façade.

G. All service, refuse, garage doors, mechanical equipment and loading dock areas should be screened from public view through strategic placement, landscaping, and/or architectural design integration. For sites with dual frontage configurations, these features should generally be located along a side yard, and not prominently visible from either the collector/arterial road or the local street.

H. While all buildings should be close to the street, most residential buildings should use a first floor elevation that is higher than the adjacent public sidewalk to maintain comfort and privacy for residents. Look for opportunities to use grade changes across the site to also provide accessible entrances to the building.



This example shows the use of a recessed entry to identify its location, and changes in material and wall plane to break up the side facade.



Example of a building facade screening rooftop mechanical from ground view.

3. PARKING, SCREENING & LANDSCAPING

A. Shared parking between uses is encouraged, to make more efficient use of land for parking.

B. Parking is encouraged to be located in the side yard and rear yard, or beneath buildings.

C. Parking and loading areas visible from the public street should be screened with berming, landscaping, fencing or a combination of these three.

D. Construct pedestrian walkways between the public sidewalk and primary building entries. On-site walkways should be separated from traffic and designed to safely connect the building to parking lots and other destinations on the site.

E. Parking lots should be landscaped along their edges and within each parking island. The incorporation of required stormwater detention and infiltration devices into the design of the parking area is encouraged.

F. All parking areas should have concrete curbs to protect landscaping areas, excluding those areas dedicated for snow storage. The curbs may contain gaps to allow stormwater flow into infiltration basins.

G. Fencing and screening should be similar or complementary to the materials of the primary building(s).

H. Landscape design should use native plant species to the region, especially buffering wetlands and other significant natural features.

This illustration shows two developments on adjoining lots sharing parking and an access drive. A sidewalk connects the two developments through the parking area.

Example of well landscaped parking edges.

Examples of desired stormwater management designs within parking lots.

4. COMPATIBILITY GUIDELINES (ADJACENT TO LOW-INTENSITY RESIDENTIAL)

These compatibility guidelines should apply to all new multi-unit residential, office and/or mixed use development of three-stories or larger and/or any development requiring a Planned Development (PD) zoning approval located on land abutting or across a street or alley from low-intensity residential. For purposes of this section, low-intensity residential development should mean single-family, duplex, townhomes (6 or less units), and small multi-unit buildings (8 or less units).

A. ***Use Intensity.*** In developments with multiple buildings with varying intensities, the development should locate buildings with the least intense character (e.g., lower heights, fewer units) nearest to the abutting low-intensity residential development.

B. ***Building Height.*** To ensure that new buildings are compatible in scale with surrounding properties, building height of any proposed structure(s) should not exceed thirty-five (35) feet in height in the following locations:

1. Portion of the structure within sixty (60) feet of a single-family or duplex lot.

2. Portion of the structure within thirty (30) feet of any other low-intensity residential lot (i.e., structures with 3+ units).

C. ***Bulk and Mass.*** Primary facades abutting or across a street or alley from low-intensity residential development should be in scale with that housing by employing the following strategies:

1. Varying the building plane setback a minimum of two (2) feet at an interval equal or less than the average lot width of the applicable low-intensity residential uses. For example, if a block of single-family lots is across the street from the development with an average lot width of 50 feet, the applicable facade should vary its building plane, at a minimum, every 50 feet.

2. Providing a gable, dormer, or other change in roof plane at an interval equal or less than the average lot width of the applicable low-intensity residential uses. For example, if a block of single-family lots is across the street from the development with an average lot width of 50 feet, the applicable roofline should vary, at a minimum, every 50 feet (measured at the roof eave).

D. ***Roof Pitch.*** The roof pitch of new residential buildings should range between 6:12 and 12:12. The roof pitch of porches should not exceed that of the residential building to which it is attached.

E. ***Architectural Features.*** Encourage all the following categories of architectural features, with preference for at least two, to be incorporated into street-facing facades:

1. Porches or porticos

2. Balconies

3. Dormers and Gables

4. Bay Windows

5. Door and Window Ornamentation which may include surrounds, pediments, lintels and sills, hoods, and/or shutters.

F. ***Entrances.*** Street-facing facades providing direct access to first story dwelling units through individual entrances are encouraged. Preference is at least twenty-five (25) percent of ground units having direct access.

G. ***Garages.*** Attached garages should not face or open towards the street. If this is not attainable, garages should be sufficiently screened and face the street with the highest intensity of adjacent uses.

H. ***Parking.*** Parking areas that are visible from the street and located in the building front lot setback should provide buffering at a minimum height of thirty-six (36) inches above the parking surface. Buffering can consist of landscaping, berms, fences/walls, or a combination of these.

I. ***Refuse Areas.*** Dumpsters should be placed either in the underground garage or behind the building with opaque screening (constructed of the same materials as the primary building). If the refuse area cannot be placed behind the building, a wood fence or wall, at least six (6) feet in height, with landscaping around trash enclosures is encouraged.

CHAPTER 3

LAND USE

31 Existing Land Uses

This section looks at a variety of factors that impact current land use supply and future demand in the study area. It highlights existing land use, zoning, and property ownership.

34 Natural Resource Systems

This section provides an overview of the natural environment that shapes the Neighborhood.

37 Land Use Concept Development

This section outlines the preferred character for the neighborhood through feedback received on a series of land use concepts. Key design parameters are identified through the preferred concept, providing the basis for utility infrastructure review and the Future Land Use for this area.

EXISTING LAND USES

A crucial early step towards establishing a vision and promoting redevelopment is analyzing the existing environment. This chapter contextualizes the factors which will impact the current supply and future demand of land uses in the Neighborhood, excluding municipal infrastructure factors that are discussed in Chapter Four.

PROPERTY OWNERSHIP

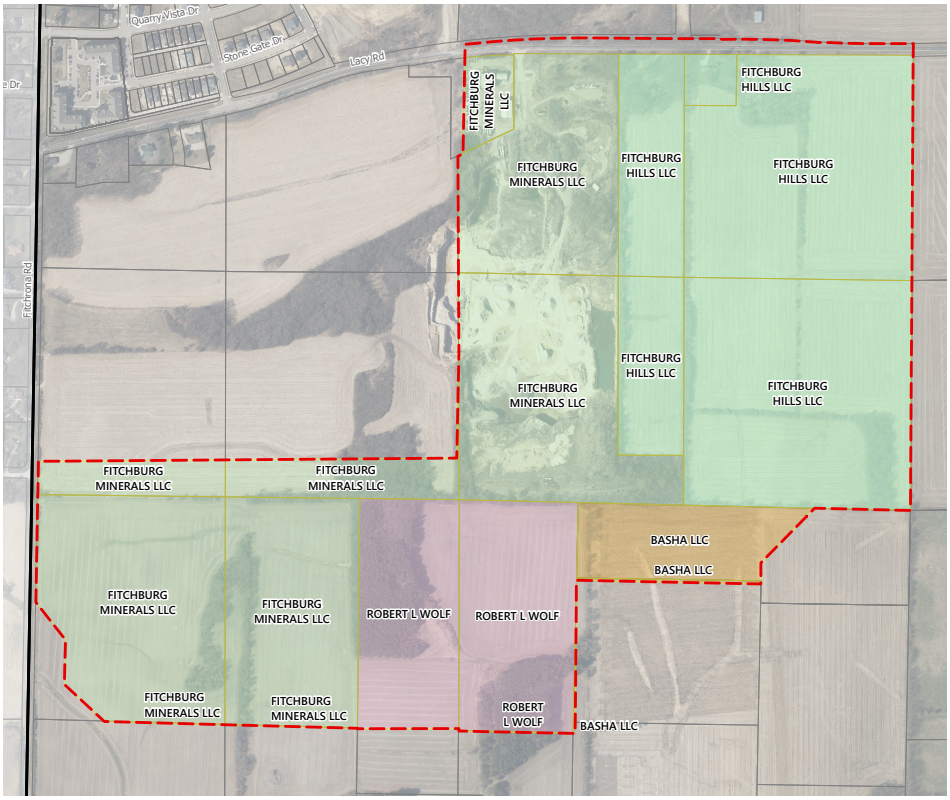
The South Stoner Prairie Neighborhood sits on approximately 280 acres of land, divided into 20 parcels. The five major landowners are identified in **Table 3.1** and **Figure 3.1**. Around 80% of the area is owned by two main entities: Fitchburg Hills LLC (with 96.9 acres, equivalent to 36.5% of the total area) and Fitchburg Minerals LLC (with 116.3 acres, equivalent to 43.8% of the total area).

The quarry sites, illustrated in the photos on the right, are surrounded by open space and agricultural uses, creating a unique set of environmental conditions. Fitchburg Minerals LLC owns most of the adjacent land to the west, bordering the Town of Verona. Most of the land is used for current or future quarry activity.

Table 3.1: Property Ownership

Owner	# of Parcels	Area (sqft)	Area (Acres)	% of Total
BASHA LLC	3	516,881	11.9	4.5%
FITCHBURG HILLS LLC	5	4,222,457	96.9	36.5%
FITCHBURG MINERALS LLC	9	5,205,514	119.5	45.0%
ROBERT L WOLF	3	1,629,897	37.4	14.1%
Study Area Total	**20**	**11,574,749**	**265.7**	**100**

Figure 3.1: Property Ownership Map



Photos of Neighborhood

Figure 3.2: Existing Land Use Map

Study Area
City of Fitchburg
Surrounding Municipality
Existing Land Use
Agriculture
Single Family
Extractive
Open Land
Woodland
Water
Right of Way
Transportation

NOTE: This is completed in 2024 at the beginning of this planning process, and does not reflect the existing conditions at the time of this plan's adoption.

EXISTING LAND USE

The study area has multiple active quarry sites surrounded by woodland and agricultural land. As indicated in **Table 3.2**, the study area's primary uses by total land area are agriculture (64.4% by area), extractive (20.5% by area), and woodland (6.0% by area). There is a 7.3-acre area outside of the Neighborhood to the northwest—within the Urban Service Area—that is already approved for a residential development of single and two-unit dwellings. There is an already developed neighborhood within the City on the north side of Lacy Road.

North of the study area, the City of Fitchburg has a mix of extractive sites, industrial uses, and a notable amount of existing and proposed single-family housing. To the east and west, there are single-family neighborhoods with rural character and vast open spaces.

Table 3.2: Existing Land Use

Land Use Category	Area	
	Acres	% of Total
Agriculture	174.3	64.4%
Extractive	55.5	20.5%
Open Land	12.2	4.5%
Single Family	7.3	2.7%
Transportation	4.8	1.8%
Woodland	16.4	6.1%
Total	270.5	100

Figure 3.3: Existing Zoning Map

ZONING

The city's zoning ordinance assigns all parcels to districts, describes which uses may occur within each district, and establishes dimensional standards for development within each district, including minimum building setbacks, maximum lot coverage, and maximum building height.

As indicated in **Figure 3.3** and **Table 3.3**, 74.7% (198.4 acres) of the total area is currently zoned as A-X (Exclusive Agriculture). The second most common zoning in this neighborhood is the R-D (Rural Development), with 62.4 acres occupying 23.5% of the total area. This zoning reflects the current character and feel of the neighborhood.

Table 3.3: Zoning

Zoning District	Parcels		Area		
	#	%	(sqft)	(Acres)	% of Total
Exclusive Agriculture	15	75%	8,641,934	198.4	74.7
Rural Development	4	20%	2,718,285	62.4	23.5
Transitional Agriculture	1	5%	214,534	4.9	1.9
Total	20	100	11,574,753	265.7	100

NATURAL RESOURCE SYSTEMS

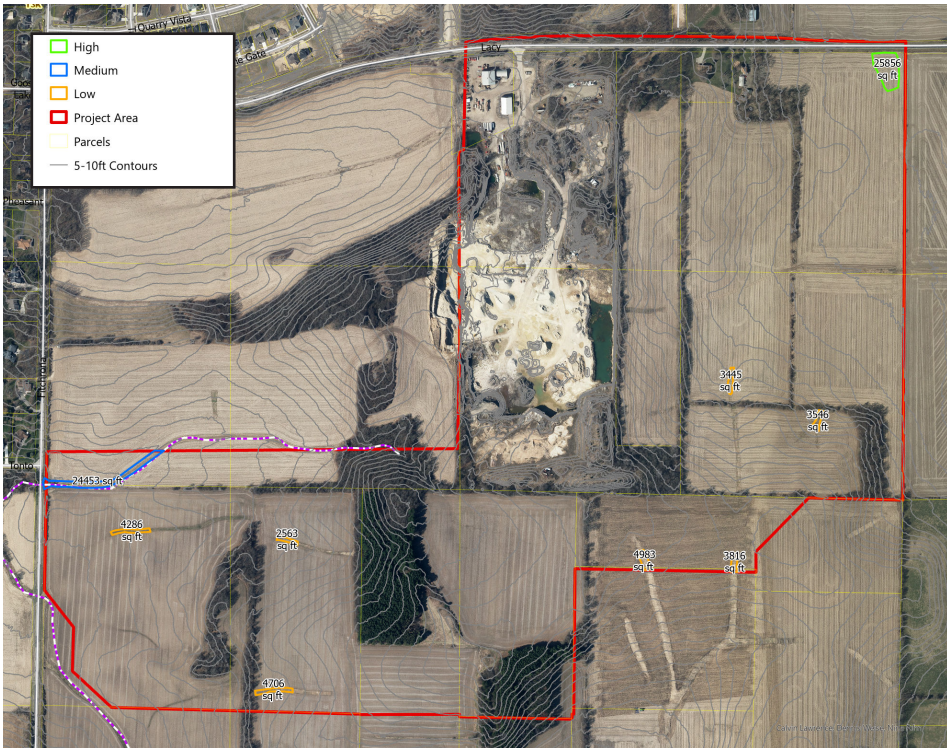
WETLANDS

As of Fall 2023, there are no delineated wetlands in the neighborhood. Per a desktop review by a wetland delineator, several areas were identified as potential wetland locations (**Figure 3.4**). There is one high-probability wetland location in the northeast corner; this area would not be considered jurisdictional by US Army Corps of Engineers (USACE) and therefore would likely qualify for a non-federal exemption from the Wisconsin Department of Natural Resources (WDNR).

There is an intermittent stream that runs along the western edge of the project area containing medium potential for wetlands. This roughly 2,253 sq ft portion of the stream is located in the northwestern-most corner of the project area and would likely be considered jurisdictional. A wetland delineation and navigability determination shall be completed prior to development.

There are seven other vegetated drainages that collect runoff from surrounding agricultural fields with slopes indicating a low likelihood for wetland formation. If wetlands are determined to be present, they would likely be jurisdictional and would need a wetland permit if disturbed.

Figure 3.4: Wetland Potential Map



WOODLANDS

While the South Stoner Prairie Neighborhood is primarily composed of agricultural land and the quarry, there are patches of woodlands intersperse throughout the project area. The largest woodland areas are located southwest and south of the quarry. East of the quarry are patches of woodlands along the perimeter of agricultural fields. Further field study to determine the maturity, species makeup, and health of the woodlands within in the project site will guide preservation needs within individual developments.

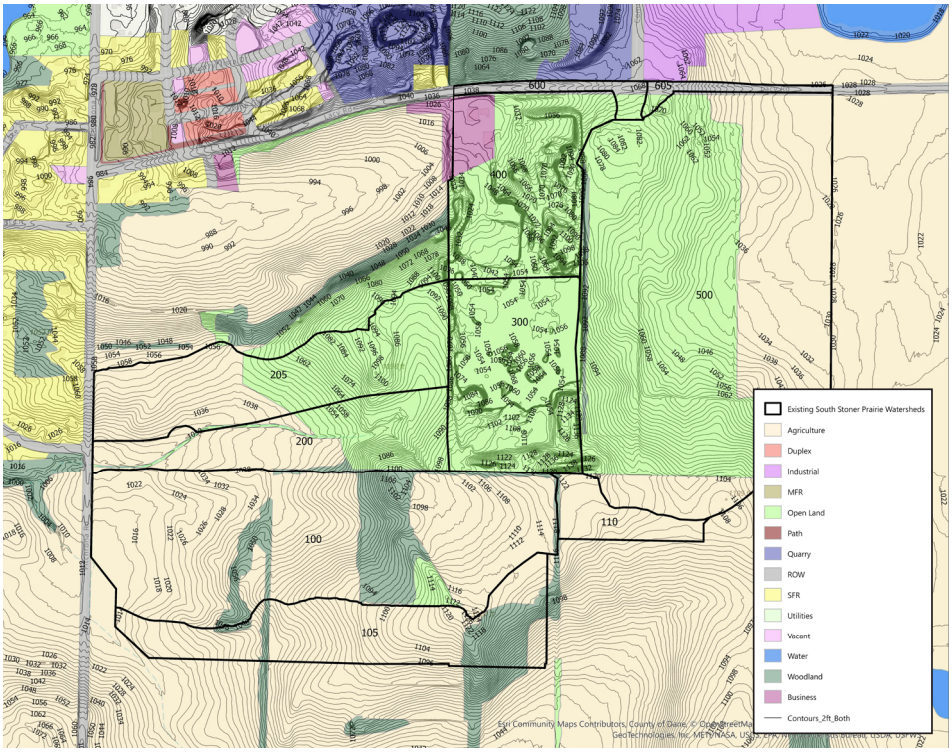
In 2022, the Capitol Area Regional Planning Commission (CARPC), in collaboration with the UW State Cartography Office, Dane County Tree Board, and Dane County Tree Canopy Working Group, updated its Heritage Oak Project inventory for the first time since 2001. Heritage oak trees are estimated to be at least 200 years and are invaluable cultural and biological resources. According to this inventory, there are no heritage oaks present within the project site.

EXISTING WATERSHEDS

Figure 3.5 outlines the SSP Neighborhood's division into the following sub-watersheds:

1. The east edge, consisting of Fitchburg Hills, LLC parcels and the eastern portion of the Basha parcel (NE corner of **Figure 3.1**). These parcels drain east toward a series of existing kettles (closed depressions). These kettles are environmentally sensitive areas, so changes in runoff conditions that effect the frequency and duration of flooding of basins can have deleterious and long-lasting effects. These kettles are located adjacent to the planning area and owned by different entities. Any increase in runoff volume from the SSPN area will increase flood elevations within these kettles and decrease the value of land surrounding the kettles. Volume controls may be required in this area to control post-construction runoff volumes to pre-development levels for events up to the 200-year storm.
2. The southern edge, consisting of the western two Fitchburg Minerals parcels and the Wolf parcels. These parcels all naturally drain west toward Goose Lake and the surrounding wetlands, which have been known to flood under existing conditions. Increased runoff volumes resulting from the development of these parcels will likely cause existing flooding to worsen.
3. The gravel quarry, which is currently landlocked due to gravel excavation. Any development that results in the discharge of stormwater runoff may require management practices to control runoff rates and volumes to zero, as currently occurs. In practice, stormwater management from this portion of the site would be accommodated by increased management in neighboring areas; however, these areas have challenges of their own.

Figure 3.5: Existing Watersheds Map



SOILS

The USDA Natural Resources Conversation Service Web Soil Survey indicates that the South Stoner Prairie Neighborhood is composed of a variety of silt loam soils, including Newglarus-Dunbarton, Dodge, Kegonsa, Plano, Ringwood, Rockton, St. Charles, Sogn, Traxel, and Whalan silt loam varieties (See Attachment B). The roughly 39 acres of the site composed of the quarry is excluded from the soil analysis given the land is highly disturbed.

The majority of soil types within the project area are noted as prime farmland or farmland of statewide importance, with the exception of the Newglarus-Dunbarton (~2.5% of project area) and Sogn (~3% of project area) soil types. The location of these soils roughly overlaps with the presence of woodlands.

Approximately 30% of the project site is comprised of Rockton silt loam with 6% to 12% slopes (RoC2), with another 13% comprised of Rockton silt loam with 2% to 6% slopes (RoB). RoC2 is an eroded soil located on the backslope of hills and is well drained; RoB is not eroded, located on a hill's summit, and is also well drained.

EXISTING PARKS, OPEN SPACE, & CULTURAL RESOURCES

Based on Wisconsin Historic Preservation Database (WHPD), there are no archeological sites or historical structures/sites. There has not been a study within the neighborhood study area.

Quarry Ridge Recreation Area

Designated as a Special Use Area in Fitchburg's 2025 Parks and Open Space Plan, Quarry Ridge is a 64-acre former quarry site just outside the northwestern edge of the neighborhood. It provides access to the Military Ridge State Trail and fourteen trails over approximately five miles of off-road biking (and some separate hiking) trails. In addition, Quarry Ridge has a shelter, restrooms, picnic tables, an information kiosk, and parking.

Endangered Species

An Endangered Species Preliminary Assessment was conducted through the WDNR's Natural Heritage Inventory to determine the presence of any endangered terrestrial and wetland species within a 1-mile buffer and aquatic species within a 2-mile buffer of the project area.

The assessment found that the project area is covered by the Broad Incidental Take Permit/ Authorization for No/Low Impact Activities, meaning the WDNR determined projects within this area will not impact or minimally impact endangered or threatened species within the state provided that a number of follow up actions are implemented. No formal review letter from the WDNR is needed so long as the follow up actions are followed in compliance with state and/or federal law.

The follow up actions listed in the preliminary assessment relate to the Rusty Patched Bumble Bee and include providing active season (prairie, marsh/wetlands, farmland, parks, and gardens) and overwintering habitat (non-compacted soils, sandy soils, or woodlands) for the bee. Any future development should:

- use native trees, shrubs and flowering plants in landscaping,
- provide plants that bloom spring through fall,
- remove and control invasive plants in any habitat used for foraging, nesting, or overwintering.

LAND USE CONCEPT DEVELOPMENT

INTENT

The land use concept exercise was developed to support community discussion on density and development pattern, road network and open space preservation. Each concept was based on general design themes with varying land use makeup. This section will highlight general feedback received through different engagement activities (see Chapter 1 for additional information).

Typically, development will move forward when the current property owner shows interest to sell or build on the property. City acquisition of property may be required in order to implement variations of these concepts.

The concept presented in this Plan provides:

- A long-term vision for what's possible
- Support for identifying character and design parameters should properties develop or redevelop
- Collaboration opportunities for existing property owners to best serve local businesses, regional employers, residents, and the redevelopment area

The provided concept is <u>not</u>:

- Restricting the properties from continuing current land uses
- Establishing the final design of the neighborhood.

  The built network of local streets is subject to change based on the needs of individual developments to accommodate lot sizing and larger-scale projects (such as the business park). Major collector roads identify required access points and connections, but may vary in their final design. ***Consultation with the Planning Department and Plan Commission are required to determine if a minor comp plan amendment will be required.***

DESIGN PROCESS

The development of the Plan's preferred concept went through three phases of evaluation:

1. **Bubble Diagrams** were developed, creating three options, recognizing land use transitions to surrounding areas, to provide coherent growth pattern . The concepts were reviewed by the Steering Committee and Planning Commission, and adjusted based on feedback from Community Survey. Following Planning Commission approval and public input, the diagrams were refined into a preferred bubble diagram leading into phase two, where three options of detailed concepts were developed.
2. **Detailed Concepts** delineate environmental corridors, floodplains, topography, etc, and define the minimum and maximum density ratios, all while evaluating the neighborhood's utility capacity. Following approvals from the Plan Commission and feedback from the Steering Committee and Public Engagement, a choice was made with the preferred option.
3. **Preferred Concept** includes further modifications and refinement based on feedback from landowners, the general public and the steering committee. Based on this phase, the Future Land Use Map provided in Chapter 2 was developed.

PHASE 1: BUBBLE DIAGRAMS

OPTION A

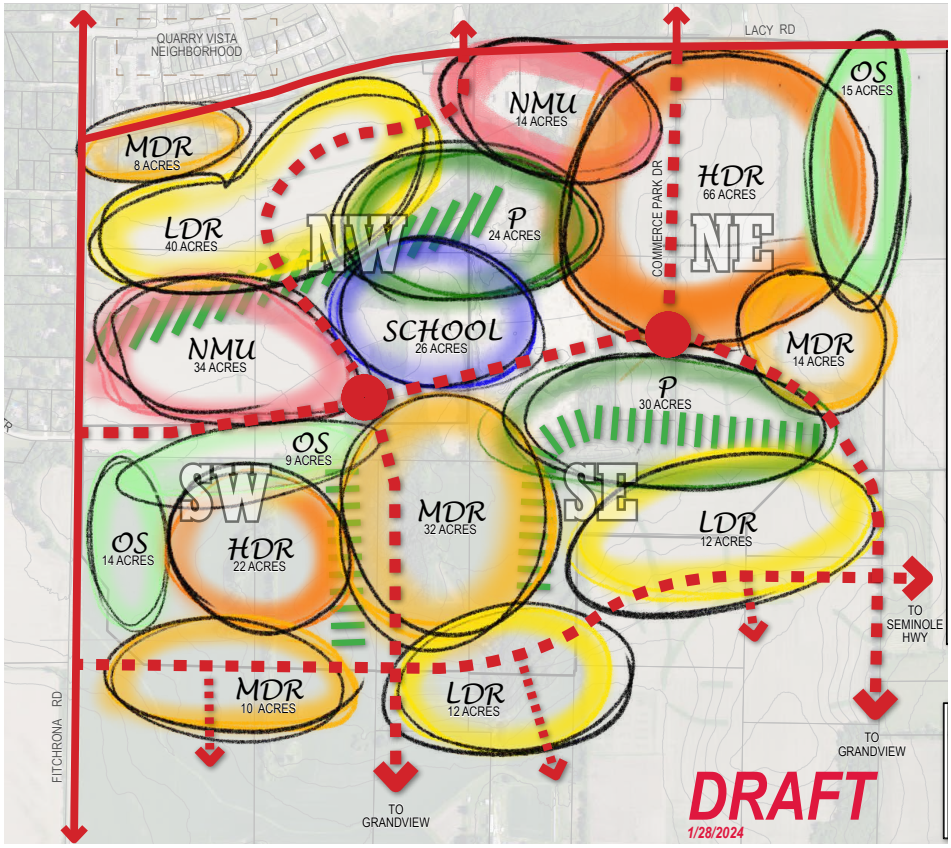
Primary Design Themes

- ***Inclusive of Existing Planned Development:*** Incorporates existing plans for low-density residential development in the northwest corner of the site.
- ***No Business Park uses:*** Excludes Business Park uses.
- ***Density:*** Concentrates higher-density developments near significant Lacy Road and Fitchrona Road intersections.

Engagement Feedback

- ***Density:*** Not enough low density, too much high density, just enough medium density and neighborhood mixed-use.
- ***Business Park:*** Should be included to meet needs and provide jobs.
- ***Parks & Open Space:*** Responses tied between "too little" and "just enough."

Figure 3.6: Bubble Diagram - Option A



- ***Preferred Design:*** Option A was chosen to move forward, with direction to incorporate a business/commerce park area on Commerce Park Drive.

Proposed Land Use Percentages:

Neighborhood Mixed Use *(15-30 U/A + Commercial)*	**48 Acres**	**13%**
High Density Residential *(11-20 U/A)*	**88 Acres**	**23%**
Medium Density Residential *(6-10 U/A)*	**64 Acres**	**17%**
Low Density Residential *(>6 U/A)*	**64 Acres**	**17%**
School	**26 Acres**	**7%**
Park	**54 Acres**	**14%**
Open Space & SW Management	**38 Acres**	**10%**

OPTION B

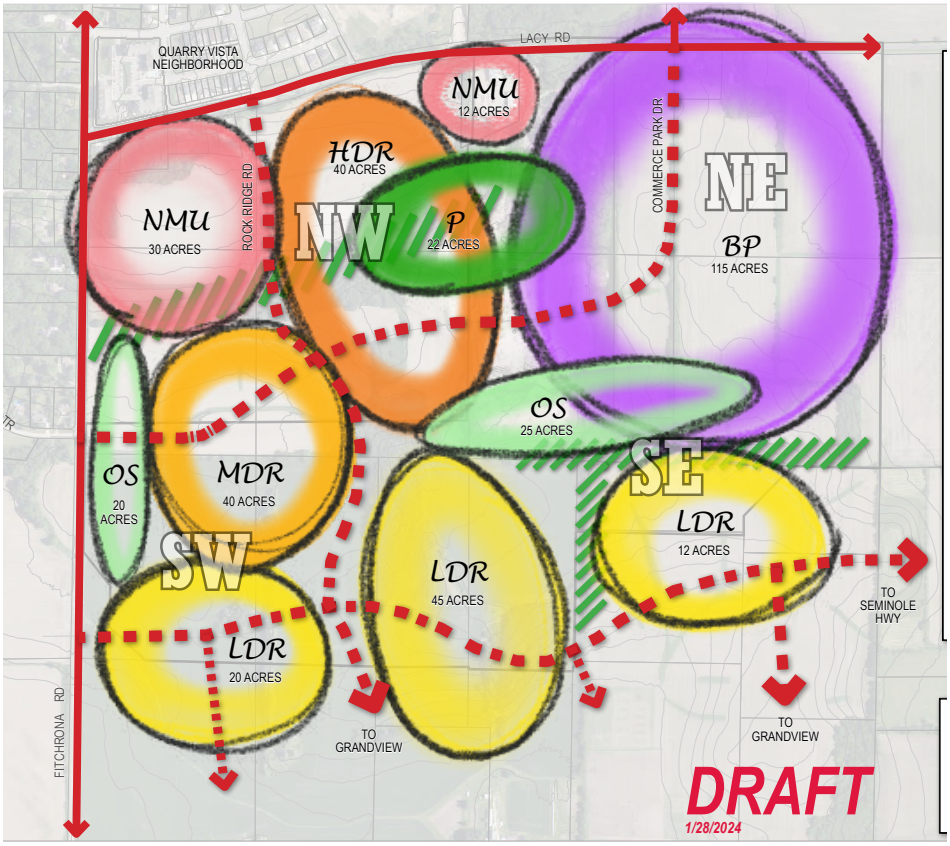
Primary Design Themes

- ***Existing Development Plans:*** This option proposes neighborhood mixed-use and high-density residential development on Fitchrona Road and Lacy Road in place of the planned low-density residential neighborhood
- ***Intensity:*** more intensive development alternative
- ***Business Park:*** adds business/commerce park across the NE corner on Lacy Road and an extended Commerce Park Drive
- ***Density:*** Concentrates the development to the north.

Engagement Feedback

- ***Parks:*** not enough parks and open space
- ***Density:*** Just enough neighborhood mixed-use and low/medium density residential, too much business park

Figure 3.7: Bubble Diagram - Option B



Proposed Land Use Percentages:

Neighborhood Mixed Use *(15-30 U/A + Commercial)*	**42 Acres**	**11%**
High Density Residential *(11-20 U/A)*	**40Acres**	**10%**
Medium Density Residential *(6-10 U/A)*	**40 Acres**	**10%**
Low Density Residential *(>6 U/A)*	**78 Acres**	**20%**
Business Park	**115 Acres**	**30%**
Park	**22 Acres**	**6%**
Open Space & SW Management	**45 Acres**	**12%**

PHASE 2: DETAILED CONCEPT

CHANGES FROM PHASE 1

Based on bubble diagram Option 'A', recommended by the steering committee, additional review of the study area, and the feedback received in Phase 1, MSA developed a detailed land use concept.

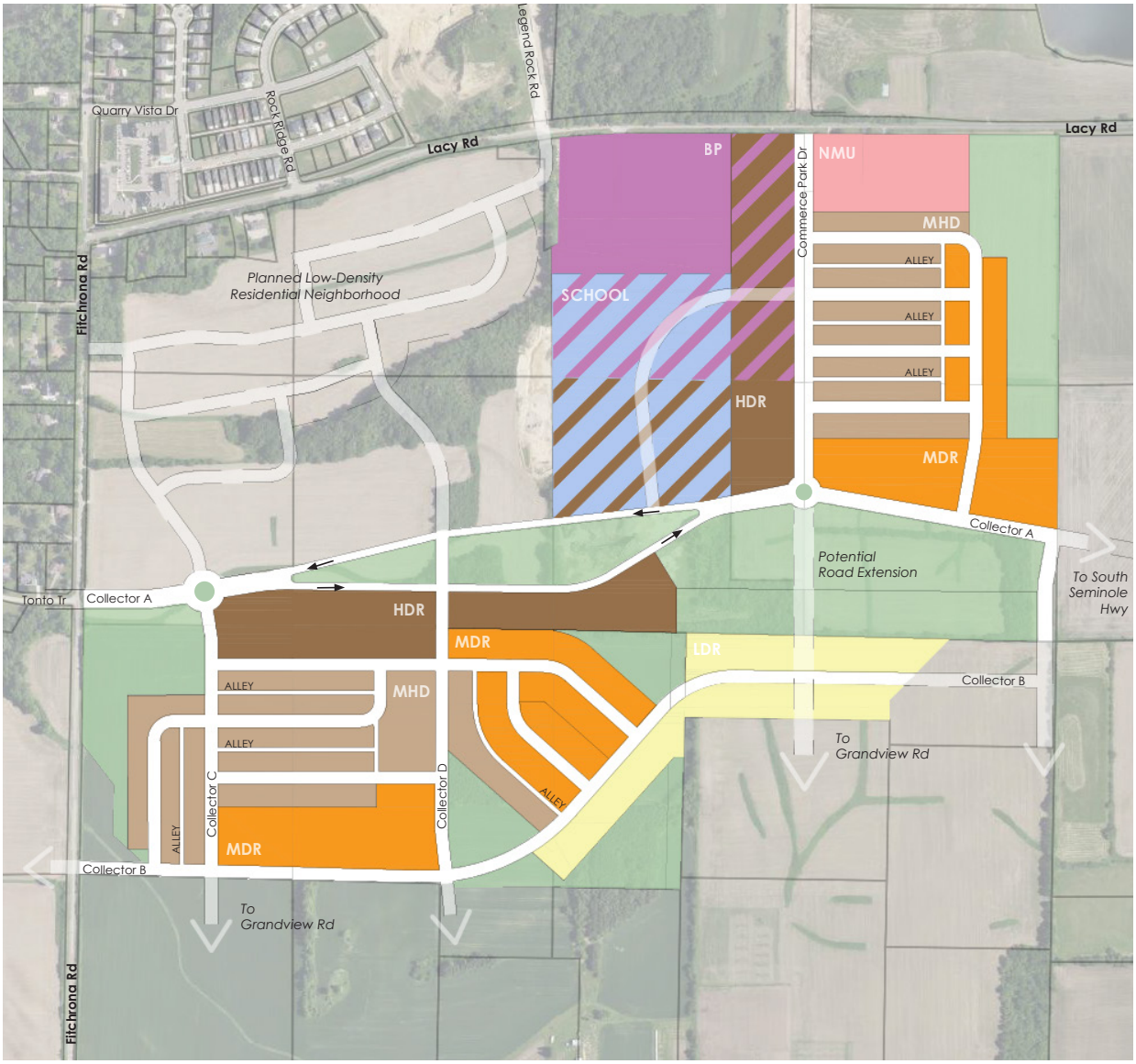
Changes from the initial design phase include:

- Extension of Commerce Park Drive farther south toward Grandview Road.
- Collector Road 'A' splits into one-ways along a central greenway to provide open air stormwater conveyance
- Collector Road 'A' is the preferred connection to Seminole Highway over Collector Road 'B.' *Collector Road 'B' runs through low- to medium-density residential neighborhoods with the potential for a greater number of driveways and conflict points compared to Collector Road 'A'.*
- Collector 'B' extends farther north due to woodlands and steeper slopes in the southeast corner of the site.
- This land use scenario proposes road connections to the planned low-density residential neighborhood northeast of the study area based on the development's approved road network; this connection would not provide a strong north/south connection from Lacy Road.
- Land uses proposed in Option 'A' for the area south of Legend Rock Road were changed after landowners expressed interest in business park development along Lacy Road.

DESIGN THEMES

- **Connections:** Collector road additions consider future connections toward Grandview Road and South Seminole Highway.
- **Density:** Higher-density developments are concentrated along the major collector roads through the neighborhood.
- **School:** Initial conversations indicate that the Verona Area School District (VASD) is considering a long-term plan to build an elementary school; this school could be located within the South Stoner Prairie neighborhood based on the proposed amount of walkable residential development (detailed information provided in phase three).
- **Parks, Open Space, and Stormwater Management:** Open space areas are placed within the site to accommodate steep changes in grade; variety of park spaces will meet a range of recreational needs.

Figure 3.8: Detailed Land Use Concept from Phase 2



LEGEND

- 15 ACRES — Business Park (BP) *(Up to 36 acres with hatched areas)*
- 7 ACRES — Neighborhood Mixed Use (NMU)
- 29 ACRES — High Density Residential (HDR) *(Up to 43 acres with hatched areas)*
- 32 ACRES — Medium-High Density Residential (MHD)
- 34 ACRES — Medium Density Residential (MDR)
- 14 ACRES — Low Density Residential (LDR)
- 25 ACRES — School
- 69 ACRES — Parks, Open Space, & Stormwater Management
- Traffic Circle

NOTE: This is a conceptual development illustration. None of the above developments are being considered at the time of the planning process. Development plans will be proposed by property owners, and subject to City review and approval using this plan as guidance for that approval. While roads are presented in each concept, it is understood that there would be additional local streets designed to provide access to individual developments.

PHASE 3: PREFERRED CONCEPT

CHANGES FROM PHASE 2

Changes from the detailed concept were derived from stakeholder input and findings from initial traffic and stormwater management studies.

- The proposed minor collector road through the business park area is extended to connect to Legend Rock Road north of the development.
- The proposed school site is relocated to outside of the study area, adjacent to the approved plans for a low-density residential neighborhood. This area is already part of the Urban Service Area, but does not have a future land use designation.
- The extension of Commerce Park Drive south through the development toward Grandview Road is firmly established in the concept based on additional review of anticipated elevation and reclamation plans for the quarries.

DESIGN THEMES

Connections

Lacy Road will establish a long term east-west connection through Fitchburg. Collector Roads 'A' and 'B' run parallel to Lacy with a potential future connection to South Seminole Highway. The location of the Collector 'A' intersection with Fitchrona Road was selected to optimize safety by lining up with Tonto Trail. Final location of this intersection may be altered due to proximity/ crossing of the intermittent stream to the east; if it is deemed a navigable waterway by the DNR, any disturbance will require a permit from the DNR.

Commerce Park Drive will extended south through the neighborhood, connecting South Stoner Prairie's business park area along Lacy to adjacent business parks to the north. Collectors 'C' and 'D' run north-south through the western portion of the neighborhood; these collectors can provide future links to the proposed school site and be extended south to Grandview Road.

The built network of local streets is subject to change based on the needs of individual developments to accommodate lot sizing and larger-scale projects (such as the business park). Major collector roads identify required access points and connections, but may vary in their final design. ***Consultation with the Planning Department and Plan Commission are required to determine if a minor comp plan amendment will be required.***

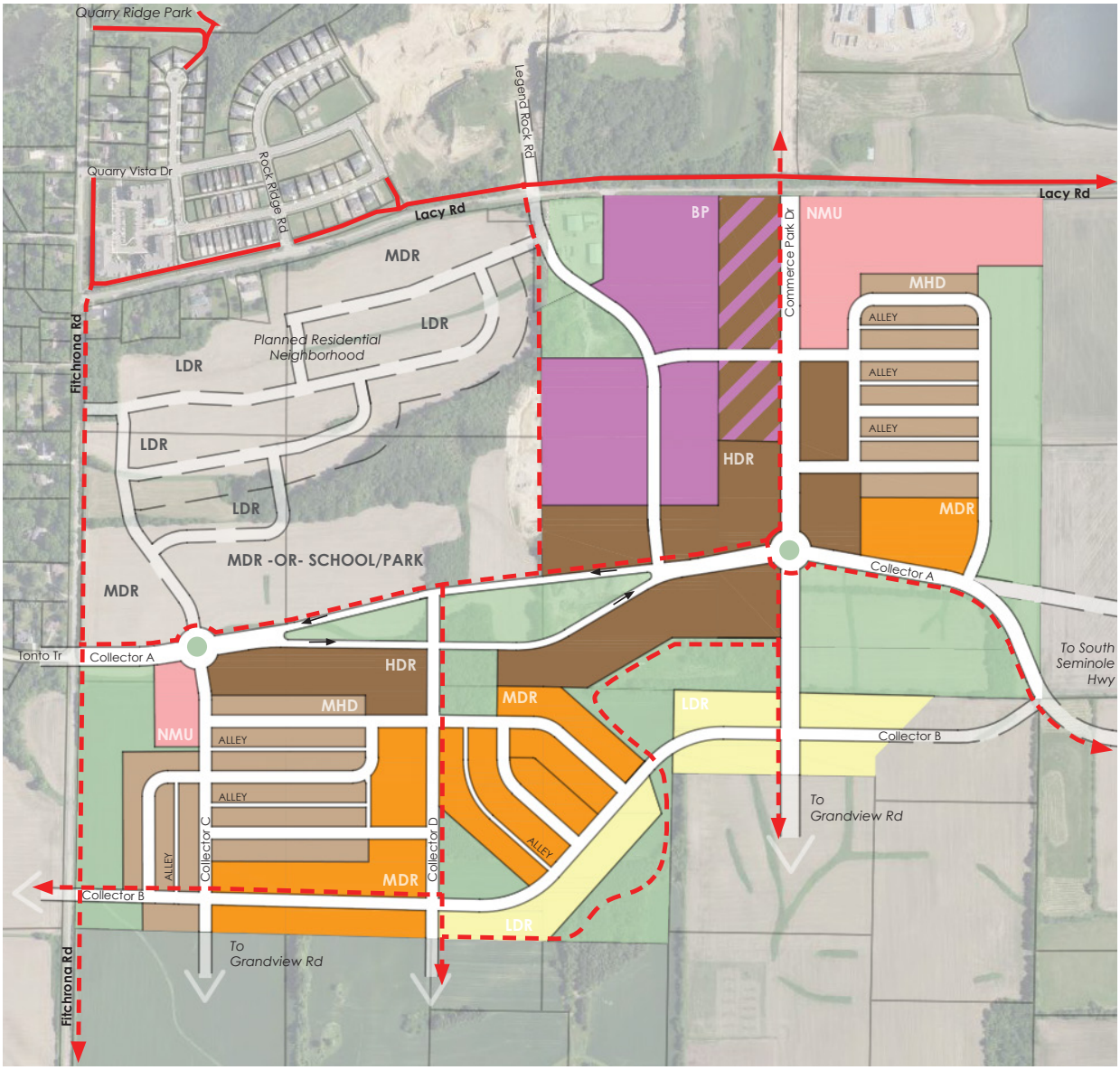
Density

Higher-density developments are concentrated along the major collector roads through the neighborhood. Neighborhood Mixed-Use areas create a more gradual transition between busy external roads to lower density areas within the neighborhood. Based on assumed densities per each residential land use, the provided concept at full build-out could provide 1,254 to 3,173 residential units (low to midpoint of the Comprehensive Plan density ranges).

Land Use "Flex" Areas: Business Park or HDR

The hatched area included in **Figure 3.9** along Commerce Park Drive addresses concerns regarding the final grading after quarrying operations are complete. Based on provided reclamation plans from landowners, the significantly different final elevations will result in an earth wall at the property line; while the removal of this wall is preferred in order to provide a larger Business Park (BP) area, the hatched area can be developed as High-Density Residential (HDR) should the wall remain. It is a 100% requirement of the proposed concept and future land use plan that the final site is graded to allow for Commerce Park Drive to extend south through the neighborhood to Grandview Road.

Figure 3.9: Preferred Land Use Concept from Phase 3



LEGEND

- 25 - 34 A. Business Park (BP) *(Range to include hatched areas)*
- 33 - 42 A. High Density Residential (HDR) *(Range to include hatched areas)*
- 29 ACRES Medium-High Density Residential (MHD)
- 29 ACRES Medium Density Residential (MDR)
- 14 ACRES Low Density Residential (LDR)
- 16 ACRES Neighborhood Mixed Use (NMU)
- 68 ACRES Parks, Open Space, & Stormwater
- Roundabout
- Existing Trails
- Proposed Trails
- 47 ACRES Right-of-way

NOTE: This is a conceptual development illustration. None of the above developments are being considered at the time of the planning process. Development plans will be proposed by property owners, and subject to City review and approval using this plan as guidance for that approval.

Neighborhood Mixed-Use (NMU)

The City's Comprehensive Plan allows Mixed-Use to include "variety of housing units, types and densities along with neighborhood scale retail businesses and offices," located within either mixed-use or standalone buildings (where permitted by comprehensive development plans).
This neighborhood plan envisions greater flexibility in the NMU area, allowing standalone multi-unit buildings, standalone commercial buildings, and/or vertical mixed use (see side bar for more information). Development within the NMU is recommended to meet the following requirements beyond those identified in Chapter Two:

- The development shall be context-sensitive in scale, massing and design.
- Site design should create walkable environments catering to the pedestrian more than the automobile.
- All buildings are set close to the sidewalk with doors and windows facing the street with parking located behind the building (see additional design guidelines in Chapter 2).
- Individual multi-unit residential developments are allowed, as well as blocks or groupings of duplex/townhome lots and single-unit homes on alleys.
- Individual neighborhood commercial developments are allowed. Typically this allows up to 25,000 square foot multi-tenant buildings, but may also include small-scale single-tenant buildings.

Proposed Elementary School Site

The Verona Area School District is considering a long-term plan to build an elementary school near the study area. The SSP Neighborhood would be a desirable location for this school based on the proposed walkable residential development and support from the Steering Committee.

Vertical vs Horizontal Neighborhood Mixed-Use

Vertical Mixed-Use combines different uses in the same building. Lower floors generally have more public uses (such as retail) with private uses on the upper floors (professional offices, residential, or hotel).

Horizontal Mixed-Use combines single-use buildings on distinct parcels in a range of land uses within one block, providing a mix of uses within a walkable block.

Criteria for a desirable school site would include:

- Location that is "one layer" removed from main thoroughfare traffic (the site north of Collector A would provide hazard-free access; walking across Lacy Road would be an example of an unusually hazardous condition).
- Access to adjoining green space like a park or dry storm retention.
- Adjoining lots are ideally residential and not commercial.
- Three points of entry to the site for parent drop-off, bus drop-off, and operations (trash and deliveries).
- Topography that would allow for one or two-story construction and flat playground space.

Through this planning process, the ideal location for this facility is on the north side of Collector 'A', (which is outside this neighborhood area). Upon further study, alternative locations consistent with policies in the Fitchburg Comprehensive Plan that meet the school district criteria could be considered.

Parks, Open Space, and Paths

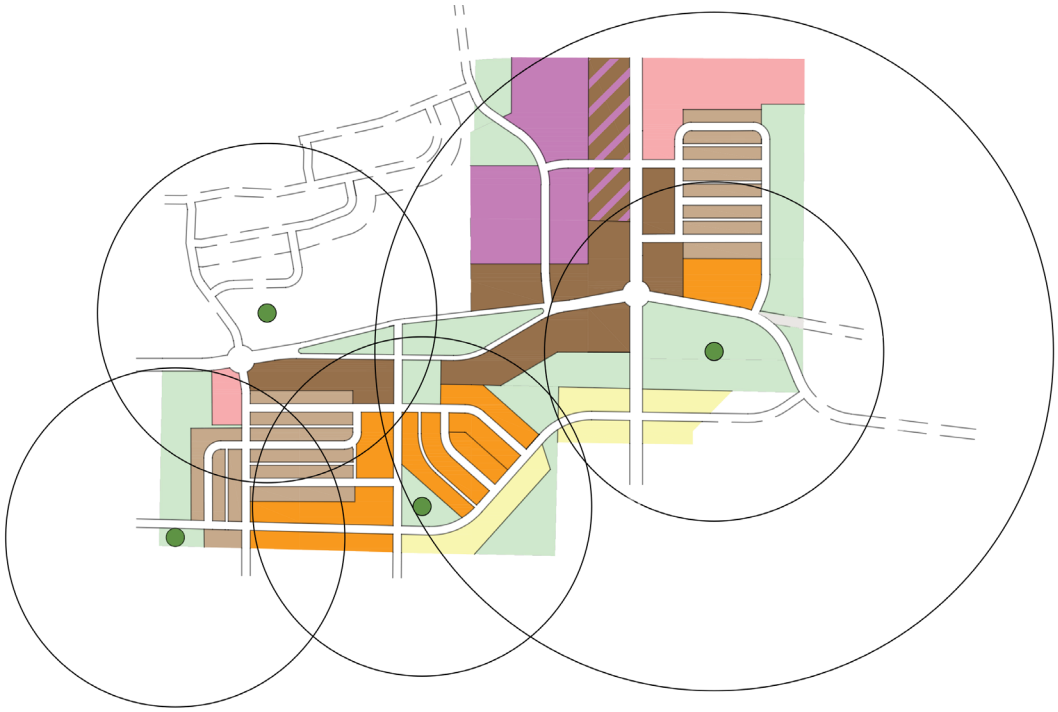
Existing and proposed paths are indicated in red in **Figure 3.9**; these off-road paths can connect residents to Quarry Ridge Park, the primary neighborhood park, and follow the east-west connections on Collector A.

City ordinance requires a parkland dedication of 2,900 square feet of per residential unit (or fee-in-lieu of). The anticipated full build-out of the SSP Neighborhood at 1,254 - 3,173 residential units would require a 84 - 211 acres of dedicated park space. While the proposed concept does not provide the minimum 84 acres, the shortfall is distributed evenly between landowners.

Placement of parks throughout the site was also carefully considered to accommodate estimated stormwater management needs and fulfill service area needs. Small parks serve a 1/4 mile radius, and neighborhood parks serve a 1/2 mile radius. As is indicated in **Figure 3.10**, the proposed concept provides park space (identified with a green dot) within adequate distances for all residential areas; small playgrounds may need to be provided privately within the residential developments north of Collector A or incorporated into areas currently reserved for stormwater management (open space areas not identified with a green dot).

There are areas of old growth/heritage trees near Collector 'A' and Collector 'D' that should be preserved - if in good health - through lot and road design. Per the preferred concept, a portion of the old growth that exists within the Collector 'A' corridor could be maintained in the expansive boulevard.

Figure 3.10: Park Spaces with Walking Sheds



DEVELOPMENT PHASING

Build-out of the planned improvements is expected to occur over 5-20 years. The projected timing of new private expansions and development is based on three factors:

1. Projections offered by business owners.
2. Timing of necessary infrastructure improvements.
3. Expected market demand for new lots.

The build-out period is divided into three phases; however, individual projects may occur sooner or later than suggested in the phasing map (**Figure 3.11**).

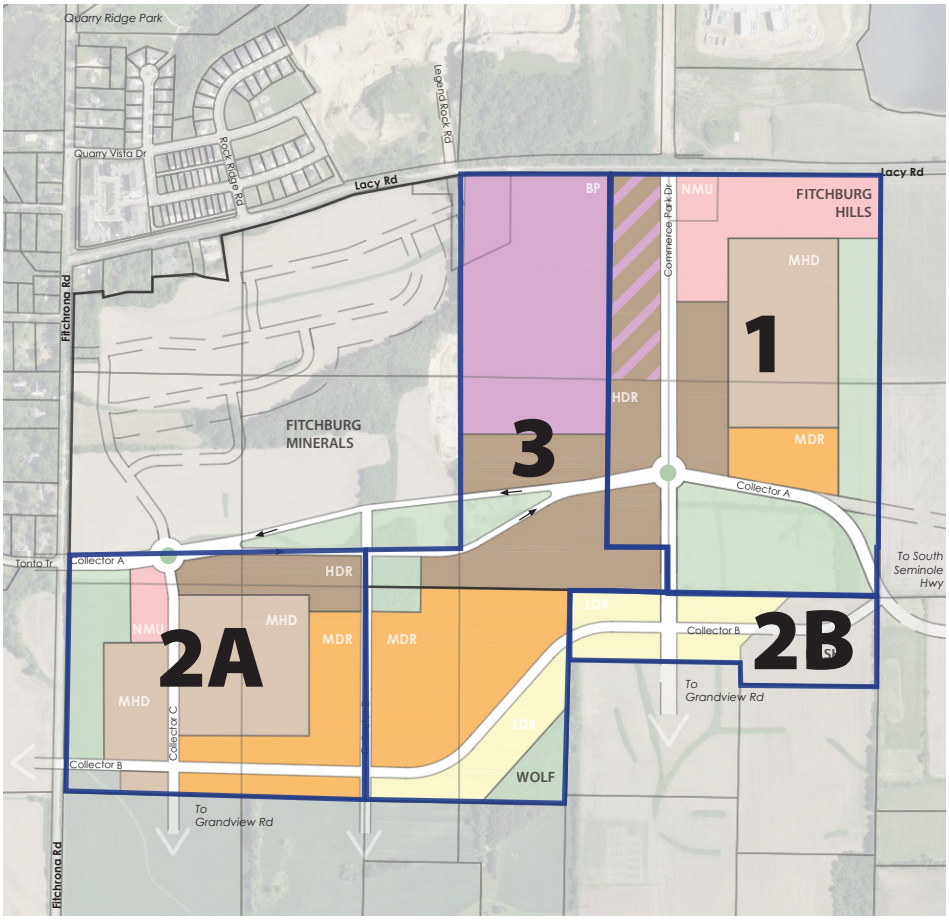
Phase 1

The lands within Phase 1 are currently under a conditional use permit for quarry operations that will expire December 31, 2028. Upon permit expiration, this area will transition into an active development site and be the first area within the neighborhood to develop. These lands may be built-out in one or multiple sub-phases.

Phase 2A

Phase 2 is divided into two sub-phases that may develop independently from one another. The lands within Phase 2A are not planned to be quarried, but development in this area will be tied to the extension of utilities service along Fitchrona Road. This area will likely begin build-out after the initial development phase north of the study area.

Figure 3.11: Development Phasing Map



Phase 2B

Development of the lands within 2B is tied to road and utility extensions, likely from the north (Phase 1 lands) or as a long-term development area tied to outside development on the west side.

Phase 3

The majority of lands within Phase 3 are already quarried and currently house materials for quarrying operations. The current owner of lands closest to Lacy Road do not foresee development in the short or mid-term; the Wolf properties to the south may be quarried in the future. Any development in this area will require utility and road extensions from the north or west.

CHAPTER 4

ENGINEERING

48 Stormwater Management

This section reviews the quality and capacity of the stormwater infrastructure in the study area.

52 Utility Infrastructure

This section reviews preliminary utility analysis within the study area.

58 Transportation Network

This section reviews the existing transportation infrastructure and transit service in the study area, and offer recommendations on their improvement.

STORMWATER MANAGEMENT

This section highlights water resource issues and provides a planning-level approach to managing stormwater in the future developed neighborhood. The conceptual plan was developed with consideration for key concerns noted by residents and City staff. Refer to Appendix C for the detailed preliminary stormwater management plan.

KEY ISSUES

The SSPN development area has multiple issues related to stormwater management with additional off-site issues that will impact the layout and implementation of the neighborhood plan. Key issues include the following:

- Surface water runoff drains in two general directions. The runoff draining to the west will travel under Fitchrona Road through two culverts before eventually reaching Goose Lake. The runoff draining to the east will flow into closed depression just outside the SSPN project area. This closed depression is part of a massive internally drained watershed stretching from the North Stoner Prairie Neighborhood southeast to Brooklyn in south-central Dane County.
- The larger internally drained watershed consists of multiple closed depressions that have no defined surface overflow routes. Runoff can only leave the closed depressions by infiltrating or if water levels rose high enough, water would discharge south along South Seminole Highway (**Figure 4.1**).
- The presence of shallow groundwater has been on the north side of Lacy Road in the North Stoner Prairie Neighborhood, where water levels have fluctuated considerably. While the closed depression immediately east of the SSPN does not have historic standing water there have been years where standing water has been present for prolonged periods during wet years. Shallow groundwater may limit stormwater infiltration if encountered.
- Currently, there are two quarries located on the north side of the SSPN. Two reclamation plans for the quarries have been provided to MSA. The western quarry owned by Fitchburg Minerals, LLC is planned to create an internally drained depression that ranges from 50' to 150' deep with an outlet to the west. The eastern quarry owned by Fitchburg Hills LLC is planned to drain by gravity to the east (Figure 2).
- There are no regulatory wetlands located in the project area, but there are wetland indicator soils located just east of the project area.

STORMWATER MANAGEMENT STANDARDS AND BEST PRACTICES

All areas in the proposed amendment area will be subject to the following standards:

Performance Standards

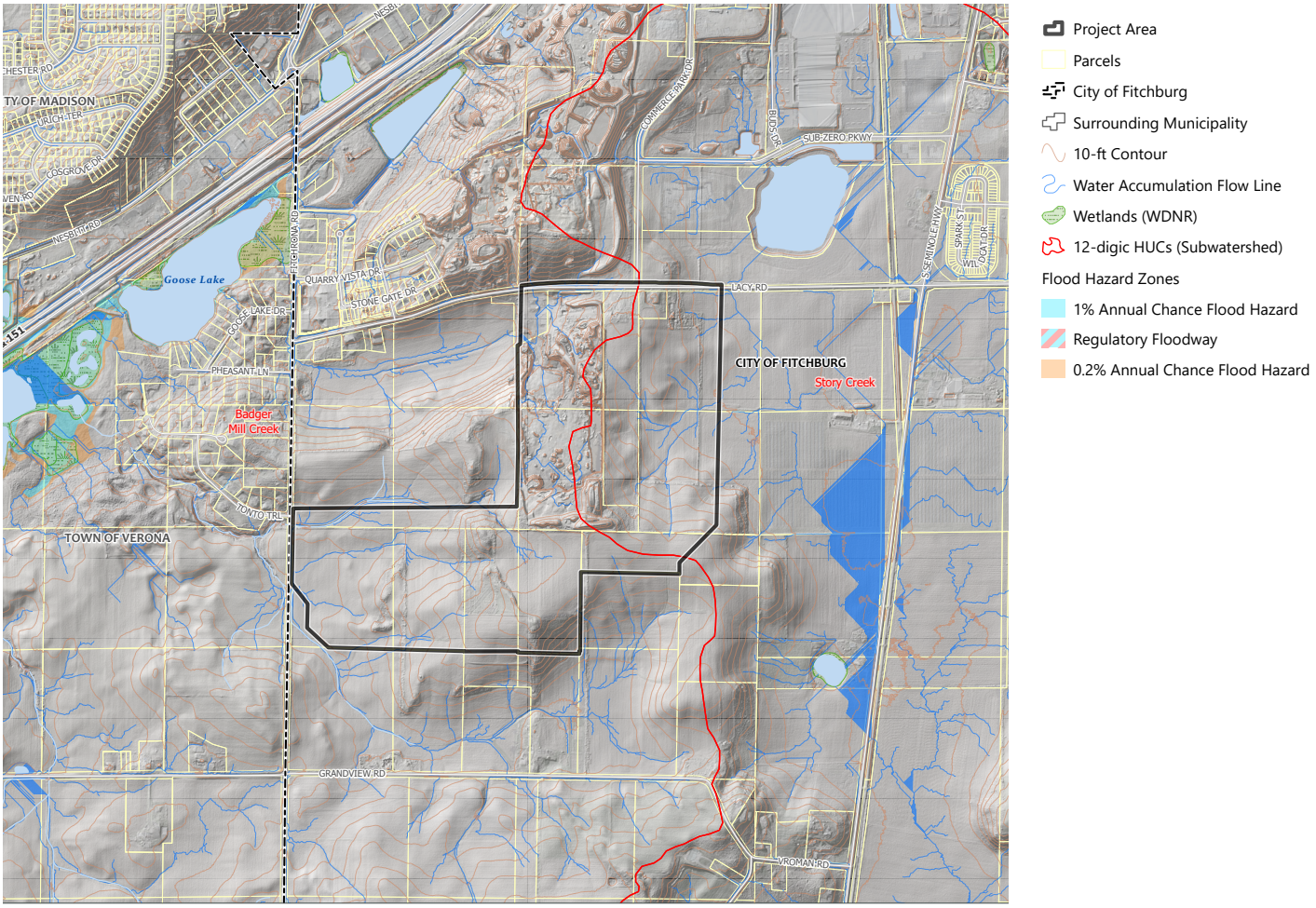
Applicable stormwater management performance measures for this site will exceed standards required by the State of Wisconsin (NR 151), Dane County (Ch. 14), and the City of Fitchburg (Ch. 30, Article II, Section 30-28) for Erosion Control and Stormwater Management, which are summarized below.

Water Quality: Require Post-Construction sediment control sufficient to reduce total suspended solids leaving the site by at least 80%

Peak Discharge Rate Control: Maintain pre-development peak runoff rates for the 1- through 200-yr, 24-hour storm events, utilizing an MSE4 rainfall intensity distribution, as itemized below:

1-yr, 24-hr event (2.49 inches).
2-yr, 24-hr event (2.84 inches).
10-yr, 24-hr event (4.09 inches).
100-yr, 24-hr event (6.66 inches).
200-yr, 24-hr event (7.53 inches).

Figure 4.1: Stormwater Drainage Map



Infiltration: Requirement for any development type is to infiltrate sufficient runoff volume so that post-development infiltration volume shall be at least 90% of the pre-development infiltration volume based on average annual rainfall. Additionally, because of the existence of closed depressions, post-development runoff volumes shall be required to match 100% of predevelopment runoff volumes based on average annual rainfall. *See stormwater report for the full analysis and discussion.*

Thermal Control: The amendment area is not part of any thermally sensitive areas and thus will not be required.

Oil and Grease Control: Required for the commercial lots planned for the development.

STORMWATER FACILITY MANAGEMENT

The City of Fitchburg will accept and maintain the stormwater facilities in public outlots following City standards. Any facilities on private lots will be maintained by the property owners and will be subject to a maintenance agreement in perpetuity, per Ch. 14.49(3)(d) and 14.51(1)(i) of Dane County ordinance and Ch. 30, Article II, Sec. 30-28(11) of the City of Fitchburg Ordinance.

RECOMMENDATIONS - STORMWATER MANAGEMENT

Peak Discharge and Drainage

M1. Control peak discharge to pre-development levels for the 1-year through 200-year events to meet City and State requirements.

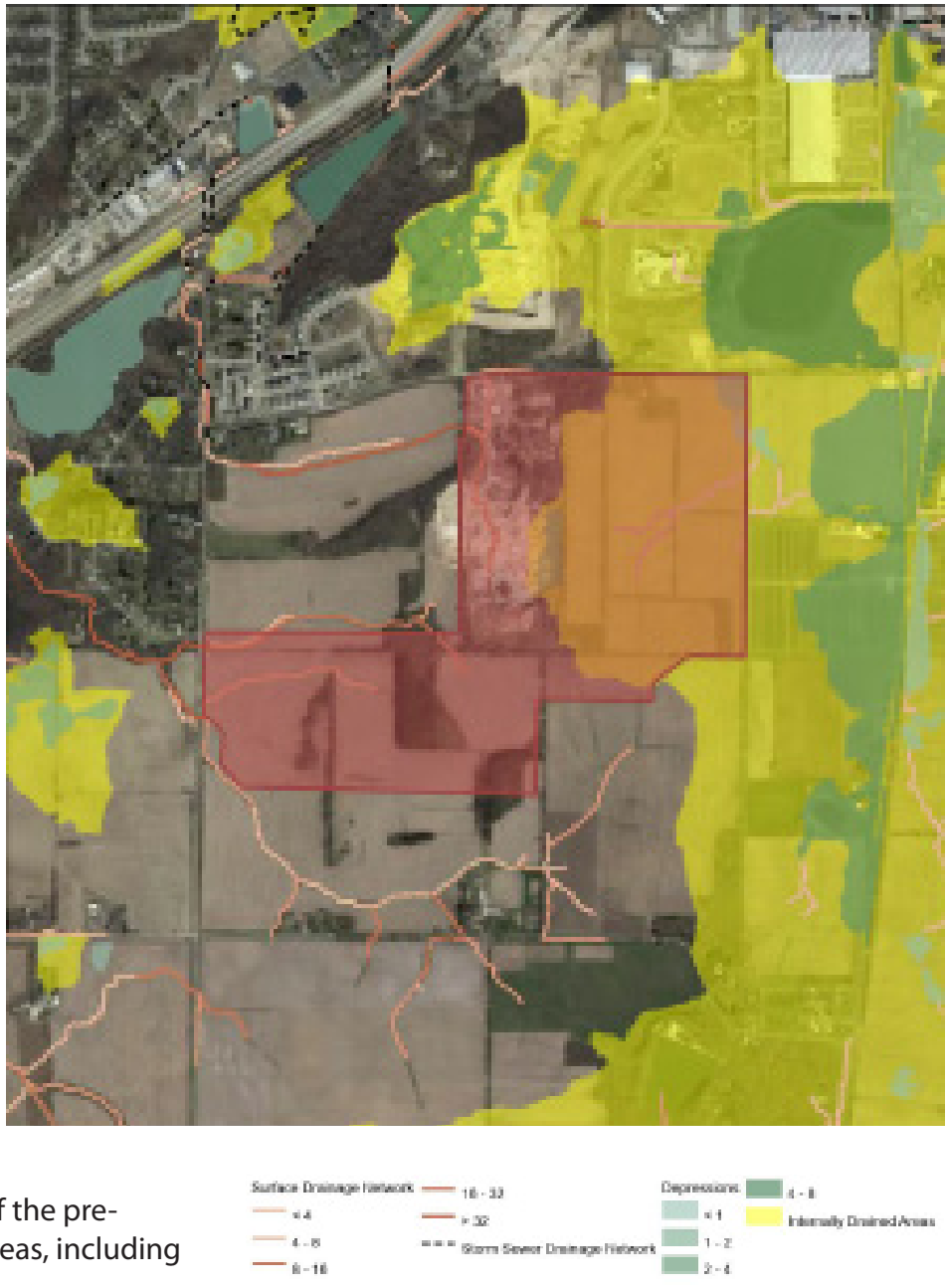
M2. Coordinate safe drainageway for runoff flowing through development to the northwest.

Stormwater Volume

M3. Require runoff volume control practices that achieve 100% of pre-development runoff volume for all development areas, including roads draining to the closed depression, based on the average annual rainfall series. This could be accomplished through regional stormwater controls and integrating stormwater controls into site landscaping requirements.

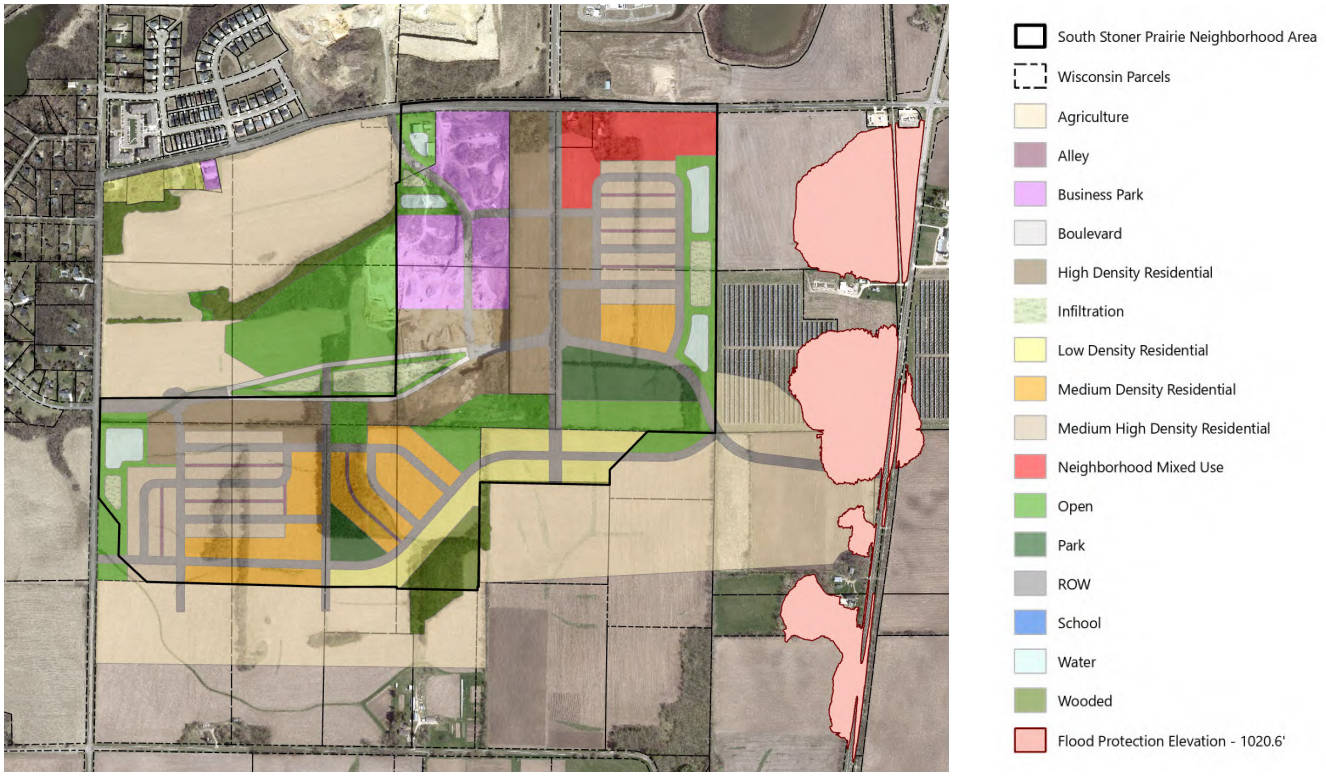
M4. For the rest of the neighborhood (areas not draining to a closed depression), design stormwater controls that reduce runoff volumes to 90% of the pre-development runoff volume for all areas, including roads.

Figure 4.2: Internally Drained Watersheds/Drainage Routes



M5. Require additional soil borings during the development of the detailed stormwater designs. Shallow groundwater or poor soils could be found in the areas where regional stormwater basins are planned. Smaller infiltration areas may be needed in higher density areas (business park, neighborhood mixed use, high density residential) to compensate for poor infiltration potential in the regional areas.

Figure 4.3: Flood Protections



Water Quality

M6. Volume and peak discharge control practices are likely to also provide the water quality treatment required by ordinances (at least 80% reduction in Total Suspended Soils relative to no controls).

Flood Protection

M7. Establish a flood protection elevation of approximately 1020.6 ft for the closed depression east of the neighborhood (see **Figure 4.3**), based on the predicted water surface elevation for back-to-back 100-year runoff events. This corresponds to an inundation area of approximately 37.5 acres for the existing topography. This extreme weather scenario is recommended for flood protection because there is no surface outlet for the area.

UTILITY INFRASTRUCTURE

The City of Fitchburg Department of Public Works operates and maintains utilities throughout the city, including a sanitary utility, water utility, and stormwater utility.

A portion of the SSP Neighborhood is designated by the Comprehensive Plan to be served by the Seminole Highway Sewer Interceptor.

SANITARY SEWER

Sanitary Sewer Calculations Overview

The preferred land uses for the SSP Neighborhood include an area that may develop either as high-density residential or business park. MSA calculated sanitary sewer sizing for each scenario, noted as Options A and B.

The sewer design for this neighborhood is based on flow rates of 1,500 gallons per day per acre for commercial use and 80 gallons per person per day for residential use. The estimated number of people per unit is interpolated from U.S. Census household sizes to cover steps between densities. A peak factor of 2.5 for commercial development and 4.0 for residential development was used for design of local sewers. For main sewer trunk lines, use of the Harmon's Formula is recommended to calculate peak factors.

Current Average Daily Flow for the Interceptor Sewer and the Wastewater Plant

The SSP Neighborhood will be serviced by two different sewersheds (the sewershed divide closely follows the division of the SSP Neighborhood's watershed, as depicted in **Figure 4.1**).

The western area of the SSP Neighborhood will flow to the existing sanitary sewer on Fitchrona Road or to a future connection to the MMSD interceptor. The sanitary sewer on Fitchrona Road has a capacity of 1.162 cfs with reserves of 0.446 cfs for building out Quarry Vista neighborhood and the low-density subdivision planned northwest of this planning area. This leaves 0.716 cfs of available capacity for additional development. *Full development of the western area at the lowest density range of the proposed concept, is expected to generate an additional peak wastewater flow rate of 0.915 cfs in the existing sewers*; therefore, this singular connection will likely be inadequate. The need for additional connection should be anticipated. The design and layout of an additional connection to the MMSD interceptor within Town of Verona is currently being explored. This additional connection and/or upsizing the pipe on Fitchrona Road could allow for greater densities in the SSP Neighborhood, as well as potential future growth to the south of this neighborhood, as further analyed in Appendix C.

The eastern area of the SSP Neighborhood will be serviced by the Seminole Highway Intercepter and will flow north to the existing sanitary sewer on Lacy Road. The existing capacity of the sanitary sewer on Lacy Road is 1.373 cfs; however, the City

Table 4.1: Average and Peak Wastewater Flow Rates - Western Lands

Western Lands							
Land Use	**Metrics**			**Average Flows (GPD)**	**Average Flows (cfs)**	**Local Sewer Peaking Factor**	**Local Sewer Peak Flow (cfs)**
Low Density Residential	80 GPD/person	11 units	2.8 people/unit	2,464	0.004	4	0.015
Medium Density Res.	80 GPD/person	123 units	2.5 people/unit	24,600	0.038	4	0.152
Med-high Density Res.	80 GPD/person	155 units	2.3 people/unit	28,520	0.044	4	0.177
High Density Residential	80 GPD/person	410 units	2.0 people/unit	65,600	0.101	4	0.406
Neighborhood Mixed	80 GPD/person	22 units	2.0 people/unit	3,520	0.005	4	0.022
	1,500 GPD/acre	1.1 acres	-	1,650	0	0	0
Business Park	1,500 GPD/acre	24.6 acres	-	36,900	0.057	2.5	0.143
Offsite*							
**Off-site service area needs to be included in the design of main sewer trunk lines.*						**Total**	**0.915**

intends to reserve a portion of this pipe capacity for potential future development along the north side of Lacy Road (currently owned by Promega Corporation). This leaves 0.9611 cfs for the South Stoner Prairie Neighborhood to utilize.

Based on the proposed development concept using the lowest density ranges results *in a peak flow of 0.645-0.770 cfs dependent on if the flex area is business park or residential.* An alternate connection may be needed along Lacy Road if the western portion of the SSP neighborhood develops denser than what is planned in Tables 4.2 and 4.3.

Table 4.2: Average and Peak Wastewater Flow Rates - Eastern Lands

Eastern Lands (OPTION A - HDR Flex Area)							
Land Use	**Metrics**			**Average Flows (GPD)**	**Average Flows (cfs)**	**Local Sewer Peaking Factor**	**Local Sewer Peak Flow (cfs)**
Low Density Residential	80 GPD/person	18 units	2.8 people/unit	4,032	0.006	4	0.025
Medium Density Res.	80 GPD/person	24 units	2.5 people/unit	4,800	0.007	4	0.030
Med-high Density Res.	80 GPD/person	102 units	2.3 people/unit	18,768	0.029	4	0.116
High Density Residential	80 GPD/person	428 units	2.0 people/unit	68,480	0.106	4	0.424
Neighborhood Mixed	80 GPD/person	137 units	2.0 people/unit	21,920	0.034	4	0.136
	1,500 GPD/acre	6.9 acres	-	10,275	0.016	2.5	0.040
Business Park	1,500 GPD/acre	0.0 acres	-	0	0.000	2.5	0.000
Offsite*							
**Off-site service area needs to be included in the design of main sewer trunk lines.*						**Total**	**0.770**

Eastern Lands (OPTION B - Business Park Flex Area)							
Land Use	**Metrics**			**Average Flows (GPD)**	**Average Flows (cfs)**	**Local Sewer Peaking Factor**	**Local Sewer Peak Flow (cfs)**
Low Density Residential	80 GPD/person	18 units	2.8 people/unit	4,032	0.006	4	0.025
Medium Density Res.	80 GPD/person	24 units	2.5 people/unit	4,800	0.007	4	0.030
Med-high Density Res.	80 GPD/person	102 units	2.3 people/unit	18,768	0.029	4	0.116
High Density Residential	80 GPD/person	250 units	2.0 people/unit	40,000	0.062	4	0.248
Neighborhood Mixed	80 GPD/person	137 units	2.0 people/unit	21,920	0.034	4	0.136
	1,500 GPD/acre	6.9 acres	-	10,275	0.016	2.5	0.040
Business Park	1,500 GPD/acre	8.9 acres	-	13,350	0.021	2.5	0.052
Offsite*							
**Off-site service area needs to be included in the design of main sewer trunk lines.*						**Total**	**0.645**

Estimate of the Average Daily and Peak Wastewater Flow

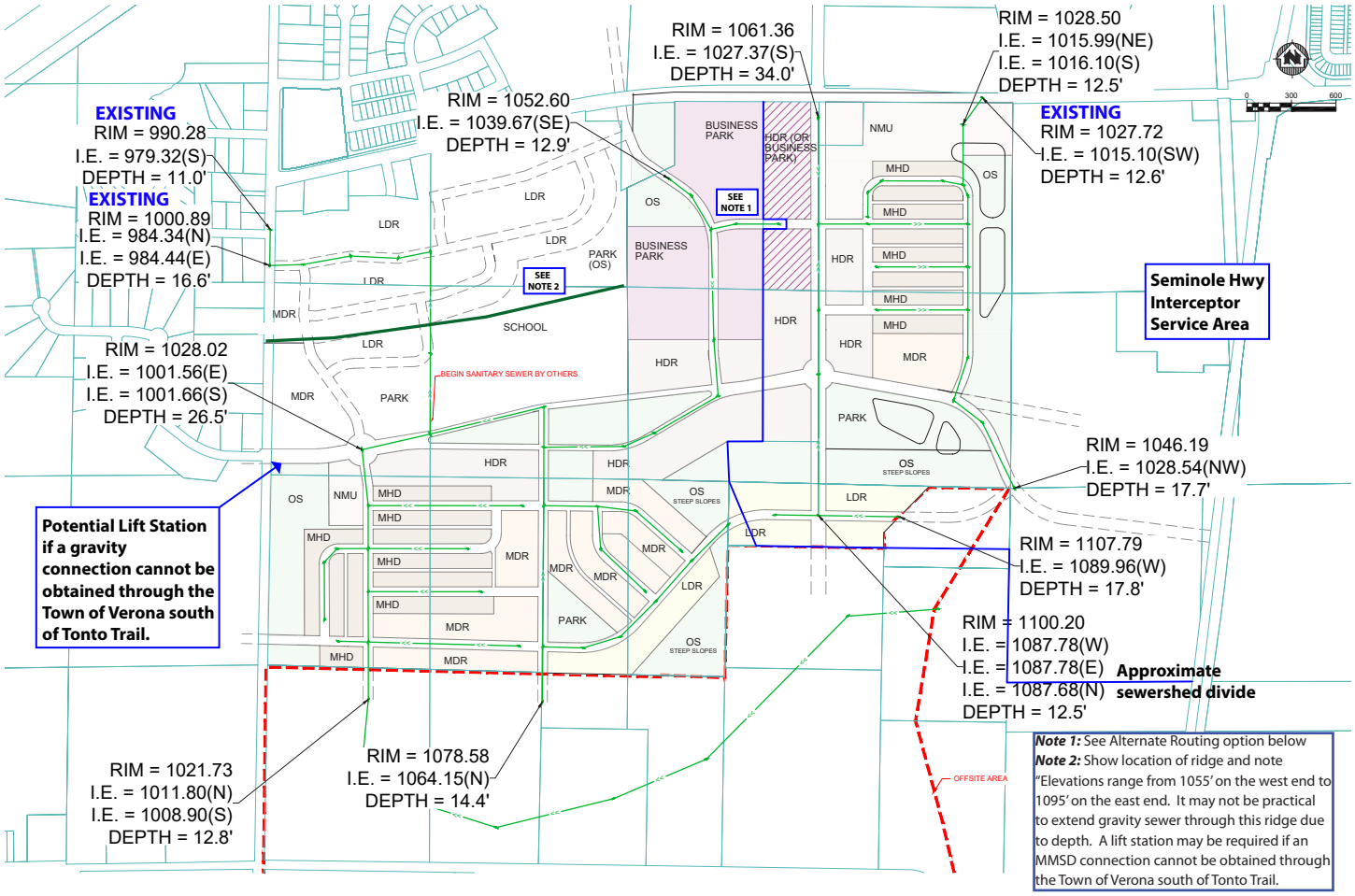
The estimated peak flow of the western sewershed area ranges from 0.915 cfs. to 2.683 cfs. dependent on the density within the Comprepensive Plan (low-midpoint density range) and potential off-site area to the south. The eastern drainage area ranges from *0.645 cfs. to 1.750 cfs*. Additional review is needed to determine off-site up-sizing projects which will collect the anticipated deficit.

Proposed Sanitary Sewer Extension

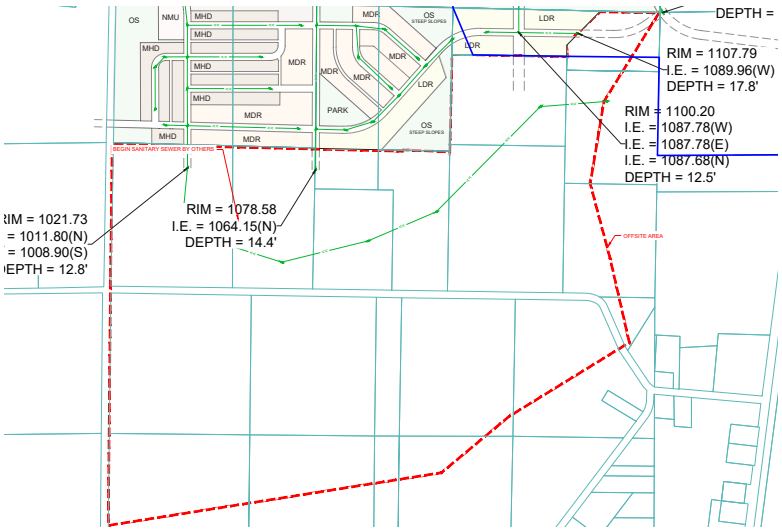
The land within the proposed USAA will potentially be served by a connection to Lacy Road to the north and by a future connection to the existing MMSD interceptor located west of Fitchrona Road or a new upsized sanitary sewer on Fitchrona Road (yet to be determined, will require further review by the City). The sewers within the development area need to be sized to serve future development to the southwest. See offsite area in Figure 4.4.

All sewers connecting to the interceptor within the proposed development are anticipated to range in size from 8-inches to 15-inches in diameter. All gravity sewer lines will extend to the plat edges in streets and within easements if needed. The developers will be responsible for installation of all sewer facilities based on the final plat approvals

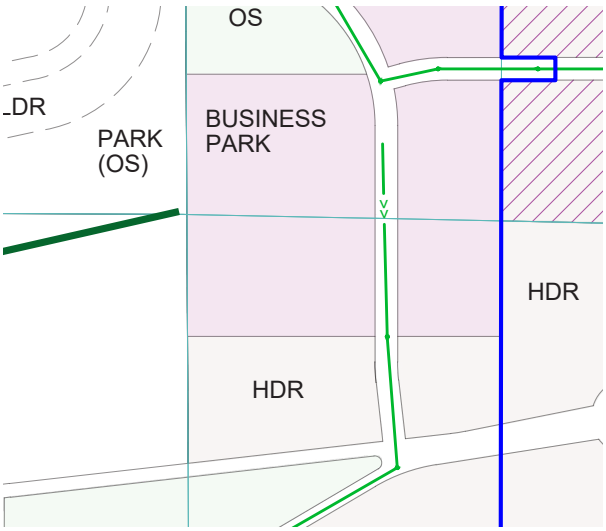
Figure 4.4: Preliminary Sanitary Exhibit



OFFSITE AREA



ALTERNATIVE ROUTING



and development agreements. As shown in the alternative routing in Figure 4.4, consideration should be given to an alternate route for the sanitary sewer through the business park area. Allowing connection to Collector 'A' would minimize sewer depths in this area.

The preliminary sanitary plan is presented in **Figure 4.4**. Service may be extended to the southwestern area outside of the neighborhood USAA (indicated by the red dashed line). The approximate total of off-site area to be served is 330 acres. Multiplying this area by 0.6 to account for future development (assuming that 40% of the land area is reserved for environmental factors, development limitations, stormwater management, and parkland dedication), the total approximate developable area is approximately 200 acres. Using the medium density residential classification (8 u/a) 1600 units are estimated in this off-site area. The main sewer trunk lines within the SSP neighborhood will need to be sized to accommodate an average 320,000 gpd of flow from the off-site area. Prior to sizing sewers in the SSP neighborhood the off-site flow should be reevaluated to address any changes in the anticipated densities.

PUBLIC WATER SERVICE

The SSP Neighborhood is located in the West Zone, one of three separate water pressure zones serving the City of Fitchburg. The North Stoner Prairie Neighborhood development called for a new well to be installed within West Zone in the Stoner Prairie Neighborhood.

The preliminary water main plan is presented in **Figure 4.5**. The east area of the USAA will be served by connecting to a 12" water main in Lacy Road. This proposed 12" water main will run in the future Commerce Park Drive right of way and extend east and west down Collector A. The proposed water main will be 10" throughout the business park areas and 8" through the low-to-

Table 4.3: Average and Peak Water Demand

Land Use	GPD	per unit	Acres	Units	Average Flows (GPD)	Max Day/ Ave. Day Ratio	Max Day Demand (GPD)
Business Park	1,500	acre	24.60		36,900	2.04	75,276
Low Density Residential	220	unit		50	11,000	2.04	22,440
Medium Density Residential	145	unit		206	29,870	2.04	60,935
Med-high Density Residential	145	unit		414	60,030	2.04	122,461
High Density Residential	130	unit		2,100	273,000	2.04	556,920
Neighborhood Mixed	130	unit		398	51,740	2.04	105,550
	1,500	acre	13.70		20,550	2.04	41,922
Total:					483,090		985,504

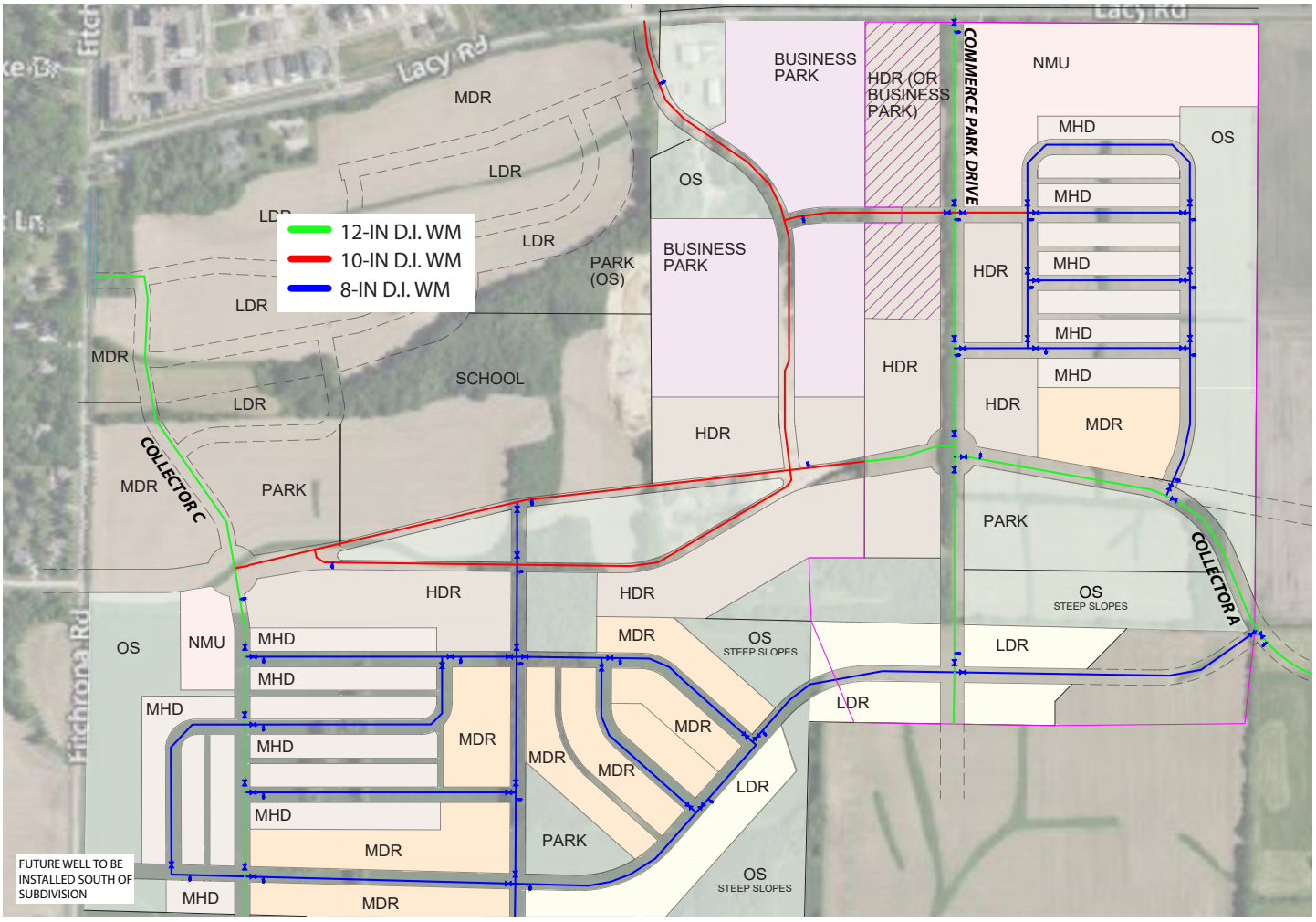
medium-density residential areas. The water main shall be looped through the neighborhood. Future developers will be responsible for the installation of all water main facilities within their portion of the neighborhood.

The estimated daily water flow rate (provided in **Table 4.3**) is based on a commercial flow rate of 1,500 gallons per acre per day and a low density residential flow rate of 220 gpd/unit, medium density residential flow rate of 145 gpd/unit, and high density residential flow rate of 130 gpd/unit. The average daily demand for the SSPN is 483,090 gpd. The maximum daily demand for SSP Neighborhood, based on the City's max day/ave day rate in the last 15 years in the west zone of 2.04 is 985,504 gpd.

PRIVATE UTILITIES

In addition to the public utilities discussed above there are several private utilities that serve the community with facilities that impact the South Stoner Prairie Neighborhood and surrounding area including fiber optics, gas and electric.

Figure 4.5: Preliminary Watermain Exhibit



NATURAL GAS

Madison Gas and Electric (MG&E) operates a pair of 12- and 16- inch gas mains on either side of the Badger State Trail, running in an easement within DOT right-of-way. MG&E also operates the Lacy Road "South Gate", just east of South Stoner Prairie near the southwest corner of Lacy Road and Seminole Highway. This facility receives natural gas from two major national transmission lines, one from the south, one from the east and south and serves as the "gate" to the MG&E distribution network, reducing the pressure from "transmission" levels to "distribution" levels. Although there is technically no additional restriction or requirement for development with respect to these natural gas facilities, the Public Services Commission of Wisconsin recommends a 200' setback from the distribution lines for new development.

FIBER OPTIC

AT&T has an installed fiber optic cable running along the west right of way line of Seminole Highway. This telecommunications and data line services the Fitchburg Commerce Park and other development north and east of SSPN.

SOLAR ENERGY

Madison Gas and Electric (MG&E) operates O'Brien Solar Farm facility located directly east of the neighborhood plan area. The total project area consists of approximately 160 acres. A 34-acre portion of the facility is located west of Seminole Highway, immediately east of the SSPN. The facility boasts more than 60,000 panels with an estimated 20 megawatt peak capacity. The solar farm project helps to provide sustainably-sourced, renewable energy to the greater Fitchburg area.

RECOMMENDATIONS – UTILITY INFRASTRUCTURE AND SERVICE

The recommendations for utilities improvements introduced in this section focus only on those improvements that should be initiated by the city of Fitchburg in order to fulfill the vision, goals, and principles of this plan. In addition, many public and private utilities improvements will be initiated by the private development community as a component of individual development projects. However, this plan does not expressly direct those improvements.

W1. Evaluate additional sewer service capacity on SSPN western portion to the MMSD intercepter northwest of the neighborhood across Fitchrona Road.

W2. Follow the watermain construction plan outlined in the Preliminary Watermain Exhibit. Approximate pipe sizing is as follows:

- 12" water main along Commerce Park Drive, Collector C, and the eastern portion of Collector A
- 10" water main within Business Park and Higher Density/Multi-unit Residential Areas (BP/HDR)
- 8" water main along Collector B and for all other Lower Density Residential areas (LDR/MDR).

TRANSPORTATION NETWORK

Effective transportation infrastructure is critical to the Neighborhood's longterm success. This section reviews motor vehicle, pedestrian, bicycle, and mass transit infrastructure.

SSPN is located outside of — but in proximity to— Madison Metro Transit's service area. The Badger State Trail is directly east, and Military Ridge State Trail is directly north. Lacy Road has path and bike lanes leading east. The Neighborhood is near Verona Road, which connects to the Beltline Highway and greater Madison area.

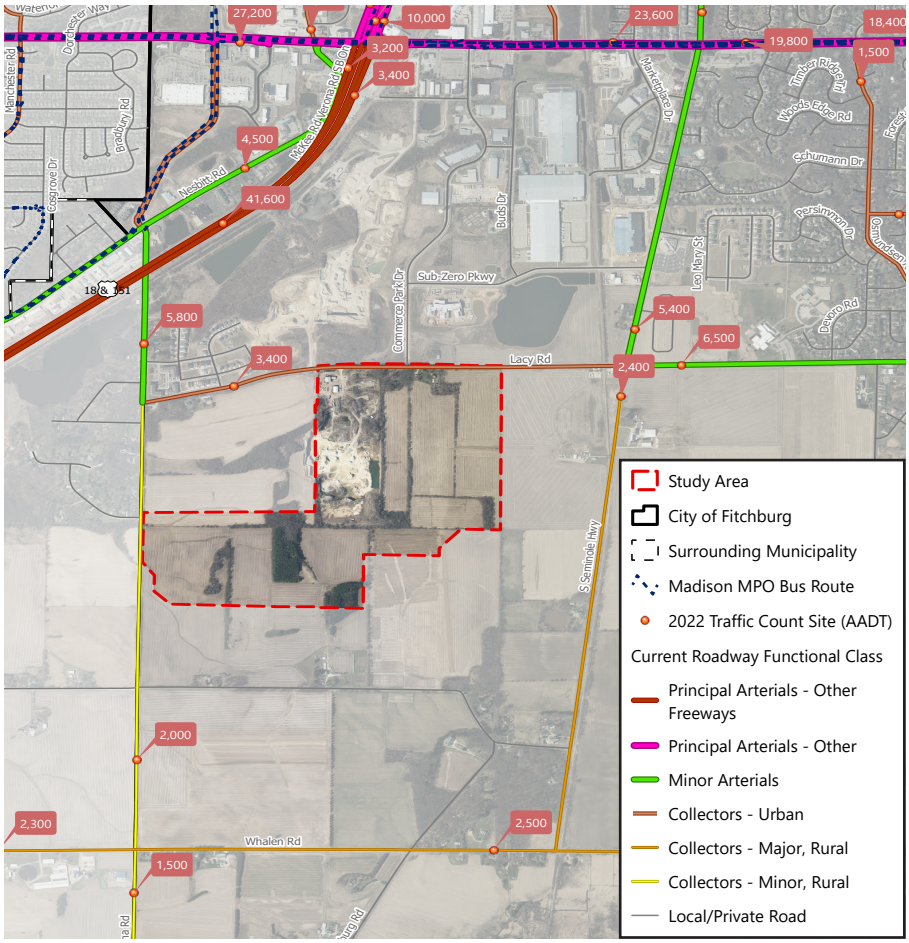
EXISTING CONDITIONS

Motor Vehicle Infrastructure

The Neighborhood is bordered by a busy collector to the north (Lacy Road) and located near a principal arterial to the west, Verona Road (**Figure 4.6**). The Neighborhood will benefit from establishing safe and efficient access to these primary arterial through an effective internal street network.

SSPN's street network has two access points, through Lacy Road to the north and Fitchrona Road to the west. Lacy Road is one of the main east/west connections in the City. Lacy Road gets busier as it moves east, transitioning from an urban collector in South Stoner Prairie to a minor arterial. Bordering the neighborhood on the West, is Fitchrona Road, a minor collector connecting that connects to the Town of Verona.

Figure 4.6: Transportation Network Map



Lacy Road (left) and Fitchrona Road (right) are the primary connections to the neighborhood and could absorb most of its traffic.

Transit System

The Neighborhood is outside of the Madison Metro Transits system service area. Active bus routes (illustrated in **Figure 4.7**) include:

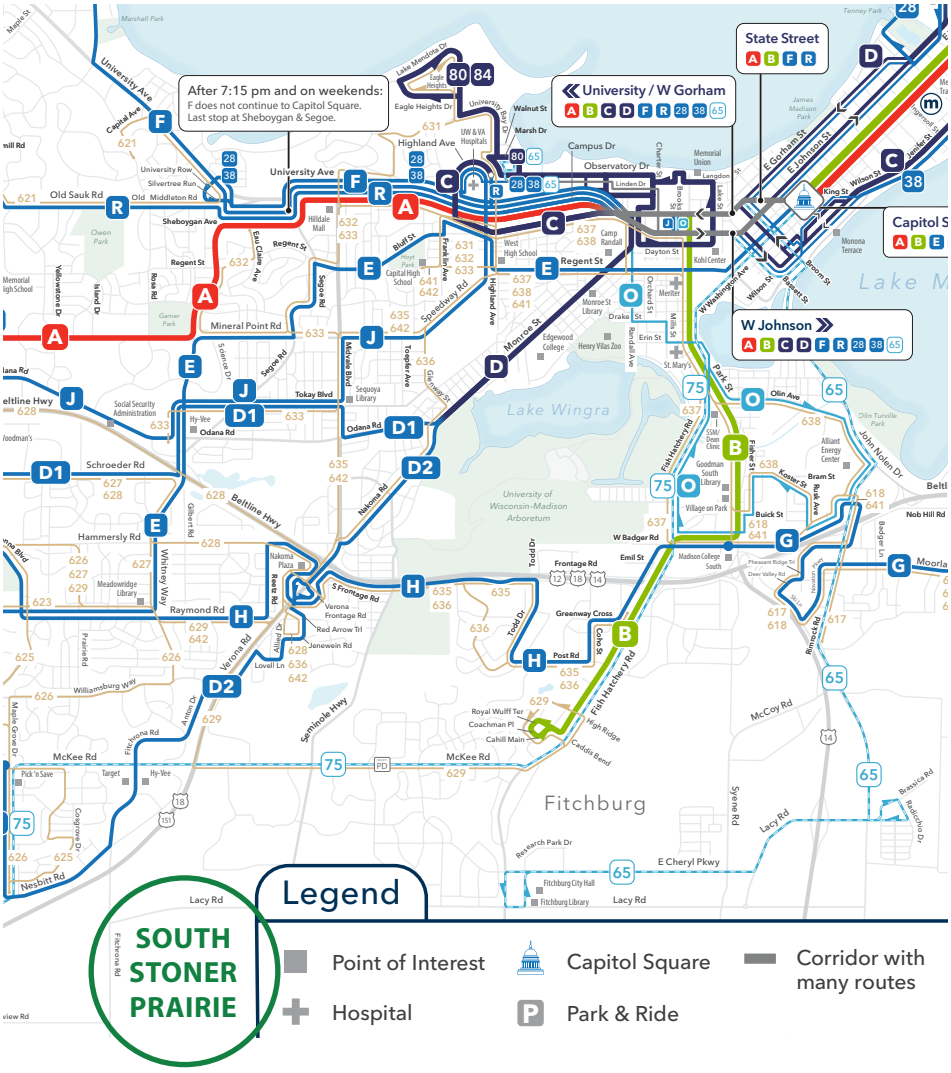
- Route B on Fish Hatchery Road
- Route D2 on Nesbitt Road, Fitchrona Rd, and Anton Drive*
- Route H on Post Road
- Route 65 on E Cheryl Parkway and CTH MM
- Route 75 on McKee Road

Bicycle / Pedestrian Routes

The study area is connected to the City's bicycle/pedestrian network via Lacy Road, which has multi-use paths and sections with bike lanes. The City plans to add a path along Fitchrona Road adjacent to the study area from the north. The City has a robust path and bike lane system within the existing Urban Service Area. The area is served by regional trails such as the Military Ridge Trail, Badger State Trail, Cannonball Path, and Capital City Trail. The area also offers bike lanes on many roads such as Lacy Road and McKee Road. Maps of the bicycle/pedestrian network are included in **Appendix B**.

To foster the success of a truly complete neighborhood, it is imperative that bicycle/pedestrian routes in SSPN connect to adjacent developments with bike/ped infrastructure (Edgewood, North Stoner Prairie, Quarry Vista, etc.).

Figure 4.7: Public Transit Network Map (Madison Metro Department)



*Route D2 was changed to a standard route with 30 minute headways in August 2025.

TRAFFIC REVIEW

The engineering assessment included a high-level review of these intersections which are most likely to be impacted by development:

- Fitchrona Road & Collector A / Tonto Trail (existing minor street stop-control)
- Lacy Road & Commerce Park Drive (existing minor street stop-control)

The review assessed the impact of development—including anticipated trip generation— and evaluated the necessity of improvements to maintain safe street operations. The evaluation accounted for the proposed land uses outlined in **Chapter Three** of this Plan (depicted in **Figure 4.8)**.

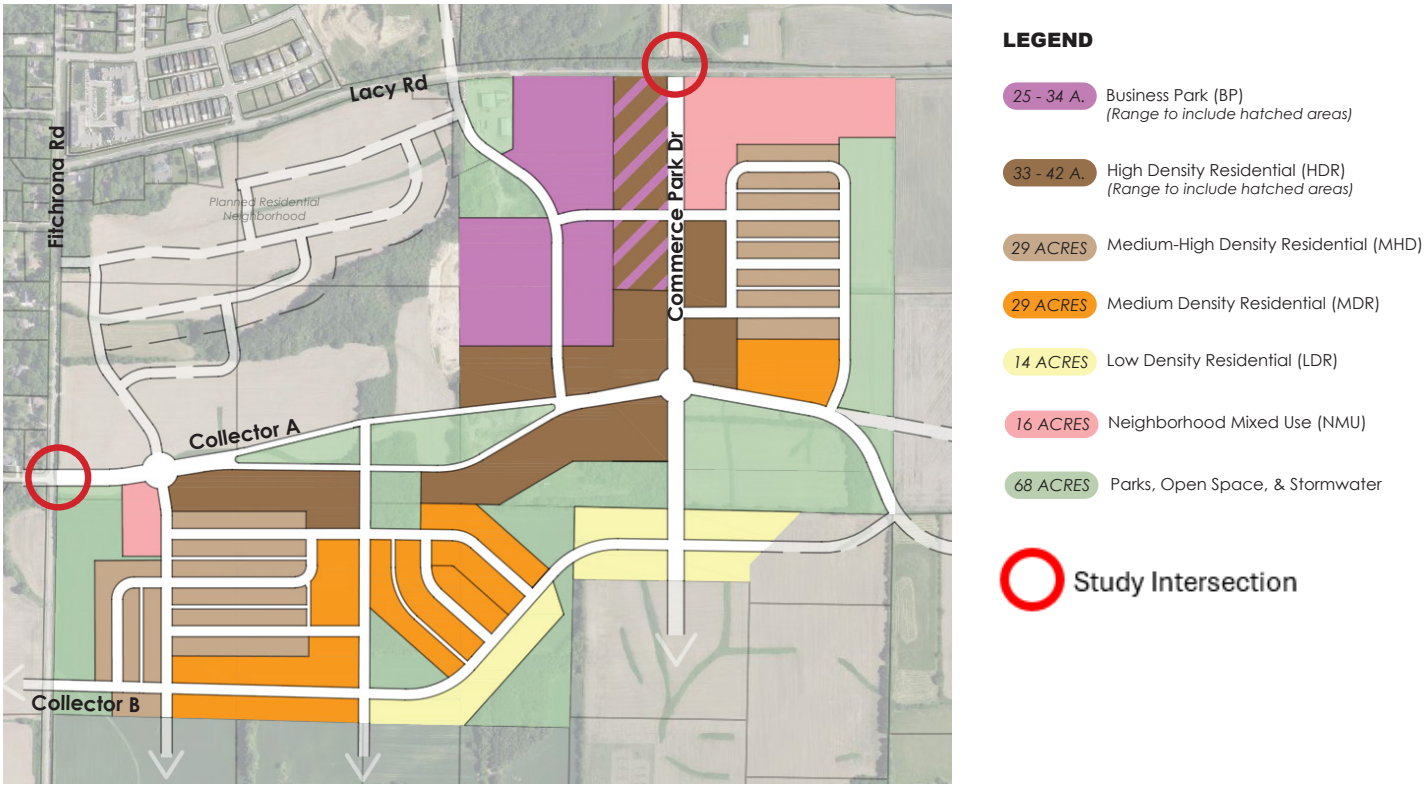
Trip Generation

The Institute of Transportation Engineers (*ITE) Trip Generation Manual 11th Edition*, is used to determined potential trip count in and out of the neighborhood at peak periods of the day. The following assumptions are included in this estimate.

- Residential unit counts use the midpoint of the density ranges determined in the City's Comprehensive Plan.
- Commercial size is assumed based on building area coverage found in similar developments in Fitchburg.
- Surrounding lands growth impacts include a 0.5% increase assumption.

In Option A, the hatched area in **Figure 4.8** is included as high-density residential land use (320 dwelling units); in Option B, this area is included

Figure 4.8: Transportation Network Analysis



as business park, assumed to be a general office building (accommodating multiple tenants for businesses, commercial or industrial organizations, or professional persons/firms). See **Appendix C** (*Exhibits 1 & 2)* for trip generation tables. Calculated peak hour trips were assigned to the study intersections based on trip distribution percentages.

Trip Distributions

Overall (global) trip distribution percentages were estimated based on traffic data collected at area intersections, historical count data, and expected routing of the proposed land uses in the proposed. Estimates were adjusted to account for nearby employment centers in the area and likely travel routes for the quantity and placement of proposed residential development.

Local distributions at intersections are based on a combination of anticipated travel time within the proposed roadway network, and the location of the destination relative to the development's access points.

The resulting anticipated distribution is listed below (see **Appendix C** for full review):

- 30% to/from the northwest on Fitchrona Road
- 10% to/from the southwest on Fitchrona Road
- 15% to/from the north on Commerce Park Drive
- 45% to/from the northeast on South Seminole Highway

The extension of Collector A east to South Seminole Highway was considered while determining the distribution of the new trips. Based on proximity to Seminole Highway and larger number of trips expected to use South Seminole Highway, the analysis assumes 15% of the trips generated by the new development will use the extension to South Seminole Highway. The extension of Commerce Park Drive south to Grandview Road in the future will likely not significantly affect the distribution of new trips generated by the South Stoner Prairie Development based on the availability of alternate routes and limited trips expected to the south of the development. No trips were assumed to use this connection as part of the analysis.

Evaluated Intersections

Fitchrona Road & Collector A (Tonto Trail)

The existing intersection at Fitchrona Road & Tonto Trail is a T-intersection, with north, south, and west approaches. At this intersection, Fitchrona road has a rural cross section without pedestrian/bicycle facilities or turn lanes. The west approach on Tonto Trail has one shared right/left turn lane. A separate, low-density residential neighborhood southeast of the Fitchrona Road & Lacy Road intersection is expected to develop as the South Stoner Prairie Development occurs. This development will construct 98 single-family detached housing units and 30 single-family attached housing units (15 duplexes). This area is also a potential site for an elementary school for up to 500 students.

Lacy Road & Commerce Park Drive

The existing intersection at Lacy Road & Commerce Park Drive is a T-intersection, with north, east, and west approaches and a driveway to the south. Lacy Road was recently reconstructed at this location with an urban cross section containing east and westbound bike lanes and a trail crossing the north approach of the intersection. The west approach on Lacy Road has one 235-foot left turn lane and one through lane. The east approach has one 205-foot right turn lane, one through lane, and one 280-foot left turn lane. The north approach on Commerce Park Drive has one shared right/left turn lane.

TRAFFIC ANALYSIS

Peak hour traffic counts (6:00 AM – 9:00 AM, 3:00 PM – 6:00 PM) were collected at major intersections near the study area in December of 2023. These

intersections include Fitchrona Road & Grandview Road, Fitchrona Road & Lacy Road, and Lacy Road & South Seminole Highway. The most recent average growth rate used by WisDOT for Dane County, which is 0.5%, was applied to the traffic counts to forecast volumes to the 2045 full build condition.

Note: Given the lack of development around the existing Commerce Park Drive intersection, the existing turning movements to/from the existing north approach were expected to be relatively low and assumed to be negligible.

Considering that overall AM peak hour volumes are lower than PM peak hour, only the PM peak period was included in the analysis. The analysis of the study intersections included these elements:

- Capacity, Level of Service, & Queueing Analysis
- Traffic Signal Warrant Analysis

Capacity, Level of Service, & Queueing Analysis

The analyses were conducted using *Synchro 12* and *HCS2023* software, following *HCM 7th Edition* methodologies and WisDOT headway values. The analysis assigns a level of service (LOS) to each movement at intersections, ranging from very good (LOS A) to very poor (LOS F), based on delay measured in seconds per vehicle (see **Table 4.4**). Evaluation criteria to note:

- If LOS falls below LOS D, intersection traffic control changes will be considered.
- Results for Lacy Road & Commerce Park Drive and Fitchrona Road & Collector A were analyzed for two development options (A and B).
- All approaches at Lacy Road & Commerce Park Drive operate above LOS D for both traffic signal and roundabout scenarios in both development options.
- No significant operational differences were found between Option A and Option B.
- 95th percentile queue lengths are expected to fit within existing or proposed turn lane lengths.

Traffic Signal Warrant Analysis

The analysis evaluated three warrants from the *Manual on Uniform Traffic Control Devices* (MUTCD) for considering traffic signals at the study intersections. These warrants were based on eight-hour, four-hour, and peak hour vehicular volumes.

For the year 2045, with full development traffic:

- Fitchrona Road & Collector A: None of the evaluated warrants are projected to be met. Only minor street stop control will be considered for this intersection.
- Lacy Road & Commerce Park Drive: Warrants 2 and 3 are projected to be met. Both a traffic signal and a roundabout will be considered for future planning, though a minor street stop control could work in the short term.

Table 4.4: Level of Service *(Highway Capacity Manual)*

LOS		Unsignalized Average Control Delay (seconds/vehicle)	Unsignalized Average Control Delay (seconds/vehicle)	Delay Type
A	"Very Good"	0 – 10	0-10	Short
B		>10 – 15	>10 – 20	
C		>15 – 25	>20-35	
D	Improvement Threshold	>25 – 35	>35-55	Moderate
E		>35 – 50	>55-80	
F	"Very Poor"	>50	>80	Long

Fitchrona Road & Collector A (Tonto Trail)
At the Fitchrona Road & Collector A/Tonto Trail intersection, the trip generation rate was applied to the 29 existing single family dwelling units (*ITE Trip Generation Manual, 11th Edition)*. The WisDOT 12-Hour Distributions were used to estimate hourly volumes at the intersection based on daily trips. Once the PM peak hourly traffic volumes were calculated, the trip distribution percentages used for the new development were applied to estimate the turning movements to and from the west approach on Tonto Trail.

WisDOT turn lane warrants were evaluated for Fitchrona Road at the Collector A/Tonto Trail intersection. Warrants account for the design speed of the roadway, percentage of turning vehicles, and the number of conflicting oncoming vehicles to provide guidance for turn lanes at an intersection. Based on the results of the turn lane analysis, a southbound left turn lane is warranted on Fitchrona Road and therefore included in the analysis.

Lacy Road & Commerce Park Drive
Based on the calculated number of trips and Level of Service (LOS), the intersection of Lacy Road & Commerce Park Drive warrants traffic signal improvements (noting that the City would prefer a roundabout at this location). Future analysis for both a traffic signal and a roundabout will be considered. With traffic signal warrants met at full build-out, only a traffic signal and roundabout alternative will be included as part of the future planning review. Minor street stop control would likely operate adequately in the short-term; however, considering traffic signal warrants have not been met at Fitchrona Road & Collector A, only minor street stop control is included for the analysis at Fitchrona Road & Collector A.

INTERSECTION ALTERNATIVES

The recommended alternatives for the study intersections will allow for safe and efficient operations to accommodate development. These locations should be monitored for additional improvements when traffic increases and/or further development occurs. Recommendations are the same for Options A and B.

Fitchrona Road & Collector A (Tonto Trail)
Based on the traffic analysis, the Fitchrona Road & Collector A/Tonto Trail intersection should remain as minor street stop control on the east and west approaches, with a left turn lane and shared through/right turn lane on the new west approach.

Lacy Road & Commerce Park Drive
Given there is not an exact development timeline, the relatively recent reconstruction on Lacy Road, and the existing turn lanes at the Lacy Road & Commerce Park Drive intersection, minor street stop control on Commerce Park Drive could be considered as an interim measure while traffic volumes are low at the early stages of development.

As the area continues to develop, the traffic analysis indicates that either a traffic signal or roundabout would operate acceptably. There is preference for a roundabout to accommodate additional capacity and provide greater safety benefits compared to a signaled intersection. Before the area is developed, the City should reserve additional right of way at the intersection to allow for a roundabout to be constructed in the future. Considering the intersection was recently constructed with turn lanes, the City should continue to monitor the safety and traffic operations at the intersection as the development progresses and consider constructing a roundabout when necessary.

SIGHT DISTANCE REVIEW

The sight distance for the new east approach to the Fitchrona Road & Tonto Trail/Collector A intersection was evaluated. A future reconstruction on Fitchrona Road will include a reduction of the speed limit, therefore the future design speed of 45 mph was used for analysis. A southbound left turn lane was included in the sight distance analysis based on the recommendations elsewhere in this study. The vertical profile of Fitchrona Road was approximated using topographical data obtained from Google Earth. Fitchrona Road is classified as a rural major collector at this intersection.

Based on *FDM 11-10-5, Table 5.1*, a single unit truck (SU) is suggested as the design vehicle to evaluate the intersection sight distance and vision triangles. Given the potential of a new elementary school in the separate development north of Collector A, and the residential development in South Stoner Prairie, it was assumed the intersection would be used by school buses, garbage trucks, delivery trucks, etc. so a single unit truck was included with the sight distance analysis. The sight distance was also evaluated for a passenger car (PC). Guidelines for vision triangles were obtained from *FDM 11-10, Attachment 5.10*.

A vision triangle provides an opportunity for speed adjustments or evasive maneuvers by vehicles in the event a vehicle on the side road fails to stop. Existing trees and vegetation are present in the northeast and southeast quadrants of the proposed intersection. The City should consider removing the existing vegetation within the vision triangles during the construction of the east approach.

Intersection sight distances criteria were obtained from *FDM 11-10, Table 5.2*; the calculated desirable and minimum sight distance values are shown in **Table 4.5**. The desirable sight distance criteria values are preferred distances to use when evaluating sight distance, while the minimum sight distances are available for situations where the desirable intersection sight distance cannot be met. Full sight distance calculations are attached in **Appendix C**.

The intersection sight distances shown in **Table 4.5** were reviewed, and the results are shown in **Appendix C**, *Exhibit 5*. Based on the analysis, the minimum sight distance for the future design speed is expected to be met for a passenger car for both left turns and right turns from Collector A. The minimum sight distance for a single unit truck to the right is not expected to be met due to the vertical crest curve to the north of the intersection. Both the minimum and desirable intersection sight distance is expected to be met to the south for both passenger cars and single unit trucks.

Table 4.5: Intersection Sight Distance Values

Intersection	Design Vehicle	Movement from Minor Street				Movement from Major Street	
		ISD to Left (ft)		ISD to Right (ft)		ISD Ahead (ft)	
		Desirable	Min.	Desirable	Min.	Desirable	Min.
Fitchrona Rd & Tonto Trail/Collector A	PC	530	430	700*	535	530	365
Fitchrona Rd & Tonto Trail/Collector A	SU	665	565	840*	675*	530	430

**Intersection sight distance requirements are not met with 45 mph design speed.*

The available intersection sight distance to the right for passenger cars and single unit trucks was estimated based on the approximate vertical profile. The available sight distance to the north for a westbound left turn from Collector A is approximately 540 feet for a passenger car and approximately 550 for a single unit truck. Based on the estimated available sight distance, the existing available sight distance would be sufficient for a 35 mph design speed for single unit trucks.

RECOMMENDATIONS – TRANSPORTATION NETWORK

Some area roadway improvements have been planned and are scheduled for construction in the near future. The reconstruction of Fitchrona Road north of Tonto Trail is planned for 2026. A roundabout is planned for construction at Lacy Road & Fitchrona Road; a detailed traffic analysis was completed as part of the design of that project.

Recommendations for transportation improvements listed below offer safety for roadway users and connectivity to the existing infrastructure.

T1. When warranted by delay or safety concerns, consider a roundabout at the Lacy Road & Commerce Park Drive intersection to accommodate the projected traffic from the South Stoner Prairie development.

T2. When Collector A is constructed to connect to Fitchrona Rd, construct a southbound left turn lane to Fitchrona Road at Collector A.

T3. Evaluate the addition of bike lanes to Commerce Park Drive within the SSP Neighborhood and along Collector A and B to connect to existing bike lanes on Lacy Road.

T4. Concurrent with future development, extend Commerce Park Drive from the limits of the South Stoner Prairie development to Grandview Road.

T5. When development warrants, consider expansion of bus service to accommodate existing and new residential/business development in the area. Bus service could also link South Stoner Prairie to the Fish Hatchery Road rapid transit (BRT) line.

T6. Consider a multi-use path connection to the Badger State Trail and existing North Stoner Prairie Neighborhood path network to the north and east of the South Stoner Prairie development as future development occurs.

T7. Work with Verona School District to provide an internal circulation system that provides safe routes to school for adjacent Stoner Prairie Grade School and Savanna Oaks Middle School with consideration for additional connections as needed to reduce the amount of school peak-hour traffic that now uses the local street system.

T8. Concurrent with future development, extend Collector A from the limits of the South Stoner Prairie development to connect to Seminole Highway. Evaluate adding roundabout intersections as appropriate from Fitchrona to Seminole Highway to reduce traffic congestion and increase safety. *Ensure roundabouts are designed to safely accommodate bicyclists and pedestrians.*

T9. As development advances southward along Seminole Highway, extend Badger State Trail connections to intersect with the proposed SSPN internal path network to promote regional neighborhood connectivity and enhance multi-modal commuting opportunities *(also see T6 and T7).*

T10. Consider installation of advisory bike lanes (or sharrows) on local roads with lower speeds and traffic volume to encourage road sharing *(for use on slow streets, bicycle bouldevards, or where on-road bike lanes are not feasible. Refer to NACTO or FHWA for details).*